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SOVIET UNION ECONOMIC AFFAIRS

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LEGAL ASPECTS OF STATE ACCEPTANCE PROCEDURES EXAMINED

Moscow SOVETSKAYA YUSTITSIYA in Russian No 3, Feb 87 pp 20-22

[Article by R. Larina, chief of the Legal Department of the Russian Republic Administration for Gosstandart: "State Acceptance and Raising the Quality of Products"]

[Text] During the April (1985) Plenum of the CPSU Central Committee, it was mentioned that an acceleration in scientific-technical progress and growth in production efficiency cannot be separated apart from achieving decisive improvements in the quality of products. The lack of correspondence between quality and the modern technical-economic, aesthetic and all consumer requirements and at times also the obvious waste constitute an expenditure of material resources and the labor of our people. This is why the party's economic policies place emphasis upon raising the quality of products in every possible way.

In the 12 May 1986 Decree No. 540 of the CPSU Central Committee and the USSR Council of Ministers entitled "Measures for Radically Improving the Quality of Products (USSR Soviet Law, No. 24, 1986), it is stated that under modern conditions a radical improvement in the quality of products is one of the key economic and political tasks for carrying out the program of the 27th CPSU Congress, aimed at accelerating the country's socio-economic development and it is a most important factor for intensifying the economy in the interest of satisfying more completely the increasing requirements of the national economy and the population.

The solution for the problem of radically raising the quality of products is the direct responsibility of each collective and each worker, specialist and leader.

It is further noted in the decree that in the interest of radically raising the quality of the products being produced, implementing the acceptance of finished goods and exercising control over the work of associations and enterprises in the matter of quality, the creation of a special organ for non-departmental control -- state acceptance -- is recognized as necessary.

The control work by state acceptance, which is directly subordinate to USSR Gosstandart [State Committee for Standards of the USSR Council of Ministers],

is organized in conformity with legislation which regulates the requirements for quality in domestic products.

The final result of this work is that of ensuring the observance of standards by all ministries, departments, enterprises and associations. The state acceptance of products must create a reliable barrier against supplying the trade network with unsuitable products, during the course of satisfying national economic needs.

With its introduction, enterprises which are producing defective products are deprived of such an opportunity: the organs of state acceptance have been granted authoritative powers and the right to employ stern legal measures.

Let us examine the legal aspects which regulate the work of state acceptance.

State acceptance at enterprises, as an organ of non-departmental control over their work in matters of product quality, carries out the acceptance of products in conformity with instructions by USSR Gosstandart.

In January 1987, state acceptance was introduced into operations at associations and enterprises engaged in the production of important national economic products, consumer goods and also the principal completion products and materials used in their production.

The list of associations and enterprises at which state acceptance is in operation is approved by the USSR Council of Ministers upon recommendation by the USSR State Committee for Standards, in coordination with the appropriate ministries and departments.

However the existence of state acceptance does not release the leaders of associations and enterprises or technical control services from their responsibility for the quality of the products being produced.

The principal rights and obligations of state acceptance, the relationships between its leaders and the leaders of enterprises and the obligations of the latter with regard to creating reliable conditions for normal functioning by the organs of state acceptance are defined in the statute governing the state acceptance of products at associations and enterprises, as approved in the 12 May 1986 Decree No. 542 of the USSR Council of Ministers.

The rules for the state acceptance of products are set forth in GOST [state standard] 26964-86. This standard established the general rules for the state acceptance and testing of products, including the procedures for presenting products for testing or acceptance; the procedures for carrying out tests on finished products and for handing down decisions on acceptance of the products in accordance with the test results; relationships of the parties involved during the testing and acceptance of products and the recommended document forms for use in connection with the testing and acceptance of products.

The mentioned standard is mandatory for producer enterprises, for the state acceptance of the products involved and also for other organizations which interact with them in matters concerned with the state acceptance of products.

The state acceptance workers are responsible for correctly evaluating the quality of products and the degree to which they conform to the standards, the technical conditions, the planning-design and technological documentation, the models (standards) and to the delivery and contractual conditions (particularly the requirements for product quality)

State acceptance controls the quality of the product during every production stage and carries out its acceptance. State acceptance can control not only the finished product but also its component parts (assembly units and parts), materials, substances and so forth and also operations of the technological process which are subject to mandatory complete or sampling control and acceptance.

When required, individual units, assemblies and products can be dismantled subjected to testing. The procedures for carrying out this check, the number of units, assemblies and products to be dismantled and the method to be employed for testing them are established by agreement between the leaders of state acceptance and the enterprise.

The work of state acceptance is quite varied and its representatives participate in the state certification of products.

At an enterprise, state acceptance carries out all of the functions of Gosstandart that are associated with the certification of products produced by an enterprise, in accordance with two categories of quality.

An organ of state acceptance is responsible for exercising control over the introduction and observance of standards and technical conditions for all products being produced by an enterprise, including that not intended for acceptance.

When implementing control over the production of products and their acceptance, state acceptance is obligated to be guided strictly by the rules for metrology and standardization and by the leading documents of Gosstandart and other documents which regulate the use and verification of measurement equipment.

The work carried out by state acceptance with an enterprise is based upon correct relationships and a good business-like attitude. In conformity with the statute on the operational organization of state acceptance, approved by the 28 July 1986 Decree No. 2258 of Gosstandart, it must acquaint itself with all of the documents of an enterprise that concern the quality and reliability of the products. State acceptance workers must know the production plans of the enterprise and departments, so that they can be taken into account when planning their work. In addition, they must participate in all meetings and in committee work concerned with the quality and reliability of the products which they are exercising control over. The leader of state acceptance can sign letters and documents jointly with the management of the enterprise.

However, the work of state acceptance is not limited to merely controlling the quality of products at its enterprise. This organ functions in close

collaboration with other state acceptance elements. For example, state acceptance at a leading enterprise controls state acceptance work at enterprise-suppliers for the purpose of ensuring the required quality in the completion products, assemblies, units, materials and so forth being delivered and their conformity to the requirements set forth in the technical documentation for the products of the leading enterprise. Towards this end, state acceptance at a leading enterprise has a chart which shows the cooperation taking place among its enterprise-suppliers, their locations and subordination, the existence of state acceptance at these enterprises (number, address, means of communication and other information required for interaction).

A strong lever for strengthening state discipline in the area of standards at an enterprise is that of interaction between state acceptance and the territorial organs of state supervision of Gosstandart.

In this regard, it is appropriate to mention the statute on state supervision over standards and measurement equipment in the USSR, approved by Decree No. 936 of the USSR Council of Ministers dated 28 September 1983 (SOVETSKOYE PRAVO SSSR, 1983 No. 28, p 157), according to which state supervision over standards and measurement equipment in the USSR is carried out: by the USSR State Committee for Standards; the republic administrations for the USSR State Committee for Standards in the union republics; by the centers for standardization and metrology and by laboratories for state supervision over standards and measurement equipment of the USSR State Committee for Standards.

The leaders of TsSM's [centers for standardization and metrology] and LGN's [laboratories for state supervision over standards and measurement equipment] were simultaneously recognized as being the chief state inspectors for republics, krays, oblasts and cities in connection with exercising supervision over standards and measurement equipment and they were authorized to hold responsible by law those enterprises guilty of producing low quality products.

At the present time, the rights of the chief state inspector for an oblast, kray or autonomous republic have been extended to a state acceptance leader with regard to an enterprise under his supervision. The interaction of these two competent organs of USSR Gosstandart and the correct disposition of their forces will ensure an irreconcilable campaign against bungling workers.

Let us examine the competence of a state acceptance leader.

When necessary, he can make use of the technical equipment and specialists of associations and enterprises, with the consent of their leaders, for carrying out inspections and consultations associated with the implementation of state supervision over standards and measurement equipment and also for exercising control over elimination of the violations of the standards and metrological rules. He is also authorized to delay the placing in operation or to halt the use of measurement equipment which has not undergone state testing and the metrological certification of products which were not inspected or which are defective. In addition, he is authorized to issue mandatory instructions to associations and enterprises for the removal of such equipment from

circulation and, when required, to directly remove such equipment from circulation.

A state acceptance leader can forbid the transfer into production and the use of design, technological and planning documentation which does not conform to the requirements set forth in the standards and metrological rules, if it is believed that this would lower the technical level and quality of the products; introduce into the appropriate ministries and departments and also present the leaders of associations and enterprises with recommendations for instituting criminal action against those individuals deemed guilty of having violated the standards or metrological rules, with punishment to include the release, in the established manner, from the positions they hold; provide the associations and enterprises with mandatory instructions for eliminating violations of the standards and metrological rules and those factors which lead to such violations.

Moreover, a state acceptance leader is authorized to issue instructions in the established manner on the application of economic sanctions against associations and enterprises which have violated the standards; to terminate work concerned with the production, repair and inspection of measurement equipment by associations and enterprises which are not certified for carrying out such work by organs of the USSR State Committee for Standards; to carry out an extensive one-time check and institute shortened inter-inspection intervals for measurement equipment in use at associations and enterprises which tolerated violations of the inspection rules, to forbid the use of measurement results the error rate of which has not been evaluated with the required degree of accuracy; to halt the acceptance of products in the instances mentioned and to issue mandatory instructions to the enterprise leaders calling for the shortcomings to be corrected.

However, the inevitability of punishment for each instance involving a violation of state discipline in the matter of standards is possible only in the presence of business-like and close collaboration with other controlling and legal protection organs.

Today we are still forced to admit that the standards developed by production ministries and approved by Gosstandart or the union republic gosplans quite often contain low requirements with regard to the products being produced. But the real misfortune lies in the fact that even these low requirements, owing to guilt on the part of responsible officials, are not being observed by the enterprises.

This is why, in the campaign to achieve product quality, it is necessary to employ the entire complex of existing legislation, in the interest of enforcing the responsibility of enterprises and those officials guilty of producing and selling low quality, non-standard or incomplete products. The organs of state acceptance, in the event of products being shipped by an enterprise despite a prohibition by state acceptance, are obligated to transmit the materials of state supervision to the organs of arbitration for the purpose of holding the enterprise responsible from a material standpoint. In such cases, state acceptance, as an organ of Gosstandart, institutes arbitration proceedings in the established manner for the purpose of levying a

fine against the producer, for adding to the union budget, in the amount of 50 percent of the value of the products shipped (Article 72 of the statute on deliveries of consumer goods and Article 76 of the statute on deliveries of products of a production-technical nature -- SOVETSKOYE PRAVO SSSR, 1981, No. 9-10, p 62).

Interaction between the organs of state acceptance with organs of the procurator's office will promote a strengthening of the campaign directed towards reducing the production and sale of low quality, non-standard or incomplete products; legal violations associated with failure to observe the metrological rules when accounting for material values, thus creating conditions for their misappropriation and also violations of those rules which cause substantial harm to the state as a result of abuse of official status or negligence on the part of officials. Upon uncovering the mentioned facts, the state acceptance workers issue a report to the organs of the procurator's office in the interest of instituting proceedings against the specific officials responsible by law.

A state acceptance organ is also authorized to send gosnadzor materials to the organs of people's control for the purpose of imposing a monetary fine against those officials of an enterprise deemed guilty of having produced low quality, non-standard or incomplete products, provided the enterprises actually sustained material damage.

In addition, workers attached to a state acceptance organ are authorized to prepare reports on violations by officials of respective associations and enterprises of the rules called for in the 18 May 1984 Ukase of the Presidium of the USSR Supreme Soviet entitled "Administrative Responsibility for Violations of the Rules for Product Standardization and Quality, for the Release Into Circulation and the Maintenance of Measurement Equipment and the Use of Such Equipment" (VEDOMOSTI VERKHOVNOGO SOVETA SSSR, 1984, No. 21, p 368), for holding them administratively responsible.

An important lever in the work of a state acceptance organ is that of preventive work, that is, the timely uncovering and elimination of existing shortcomings during all stages in the production of goods, in rendering assistance to labor collectives in this work and in informing the local party and soviet organs concerning their work.

A correct combination of preventive and punitive measures, made available to the organs of state acceptance, will aid in achieving order in production and in raising the quality of the products being produced.

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RESULTS OF FIRST MONTHS OF 'GOSPRIYEMKA' DESCRIBED

Moscow STANDART I KACHESTVO in Russian No 3, Mar 87 pp 3-6

[Unattributed article: "Gospriyemka: Some Results of Initial Months of Work"]

[Text] The third month of work by Gospriyemka [state acceptance] is at hand. A large detachment of new USSR Gosstandart [State Committee for Standards of the USSR Council of Ministers] workers is carrying out work at 1,500 enterprises, with their first and chief task being that of preventing the delivery to consumers of defective motor vehicles, tractors, machines, electric motors, television sets, refrigerators and many other important industrial products.

At the end of last year and in January and February of this year, state acceptance was the object of fixed attention by Gosstandart. During practically every meeting, the problems associated with preparations for state acceptance and subsequently with the initial results of its work at enterprises of a number of union ministries -- Minelektronprom [Ministry of the Electronics Industry], Minavtoprom [Ministry of the Automotive Industry], Minpribor [Ministry of Instrument Making, Automation Equipment and Control Systems], Minlesbumprom [Ministry of the Timber, Pulp and Paper and Wood Processing Industry] and others -- were examined.

The mass media -- central and local newspapers, radio and television -- devoted a great amount of attention to state acceptance.

An analysis of materials presented to USSR Gosstandart and also those published in the press allows one to draw the following conclusion: state acceptance has uncovered a number of negative phenomena in our economy which are having a direct effect on the quality of products. First of all -- there is the insufficient effect of the action of economic levers, which has brought about a distortion of priorities and a tendency towards evaluating work on the basis of the amount of goods produced rather than in terms of quality.

For example, the information uncovered by Gosstandart during an examination of the quality of the chipboard panels being produced by enterprises of USSR Minlesbumprom is of some interest. According to data supplied by the services of gosnadzor [state supervision], as a result of checks carried out in 1985

and 1986 at 64 enterprises of this ministry, 28.1 percent of the overall volume of goods produced was rejected. Economic sanctions in the amount of more than 4 million rubles were applied for violations of the standards. The initial results of state acceptance revealed no change for the better at a considerable number of enterprises. The principal reasons for the rejection of the chipboard panels had already been noted during previous checks on violations of the requirements set forth in GOST [state standard] 10632-77. The effectiveness of the sanctions turned out to be negligible.

The personnel became accustomed to the fact that they were not being held accountable for quality and that almost no punishments were being handed down. Thus the following report appeared in the 4 January issue of PRAVDA, in an article entitled "What Is In the Wallet of a Bungling Worker?": "In October 1986, at the Tykazhstankogidropress Association imeni A. Yefremov, of the overall amount of 46,000 rubles worth of defective products, only 500 rubles were withheld from specific guilty parties. According to a report published in Issue No. 5 of EKONOMICHESKAYA GAZETA (A Test for State Acceptance), the Starooskolskiy Furniture Factory lost more than 4,000 rubles last year for having supplied the trade with low grade products and yet the fines collected from bungling workers amounted to only 4 rubles and 67 kopecks.

A direct result of the distortion of priorities is the status of the OTK [Department of Technical Control]. The fulfillment of a plan at any cost forced the production leaders to "exclude" the OTK from the technological process, especially at the end of the year under review. This came across very clearly in a review of letters sent in by readers, published in the 4 January issue of SOVETSKAYA ROSSIYA. One reader commented that formerly the OTK was feared more than the procurator's office and yet today it has lost its strength and high principles.

As a result, hundreds of products which had been accepted by plant controllers had to be sent back for additional processing during the initial days of state acceptance. For example, according to data supplied by USSR Gosstandart, in early January only 60 percent of the Elektron color television sets accepted by the plant OTK were turned over to state acceptance upon initial presentation and yet by the end of the month this indicator had increased to 86 percent.

The absence of good organization and discipline, which results in irregular production operations, neglect of the requirements set forth in technical documentation and failure to observe the norms and standards at enterprises engaged in producing the final products and also among the suppliers became especially noticeable under the fixed attention of state acceptance. For example, during an examination in Gosstandart of the work of the ZIL PO [production association] under state acceptance conditions, it was noted that the association's leading enterprise experienced considerable difficulties in January as a result of poor quality in its completion products. The plant is addressing serious complaints against USSR Minneftekhimprom [Ministry of the Petroleum Refining and Petrochemical Industry] -- concerning the quality and rhythmic deliveries of industrial rubber products, USSR Minchermet [Ministry of Ferrous Metallurgy] -- concerning the quality of the metal supplied, USSR

Minelektrotekhprom [Ministry of the Electrical Equipment Industry] -- concerning deliveries of wire for electrical equipment.

All of these negative phenomena, associated with imperfections in the economic mechanism, poor production organization and with an absence of discipline, were well known. They were discussed during the 27th CPSU Congress, at plenums of the Central Committee and during specialist meetings. But the work of state acceptance, widely publicized in the mass media, has provided television, radio, the press and hence all Soviet people with clear examples of the action of the so-called "braking levers." It is sufficient to recall the television reporting from KamAZ [Kama Automobile Plant] and ZIL, such publications as the already mentioned article "A Test for State Acceptance" in EKONOMICHESKAYA GAZETA, "Shock Treatment" in PRAVDA (10 February) and articles in IZVESTIYA, SOTSIALISTICHESKAYA INDUSTRYIA and others.

What are the initial positive operational results of state acceptance?

The chief result, as noted by Gosstandart and the central press, is that state acceptance has forced everyone -- from worker to director -- to address the problems concerned with improving quality and to devote more thought to the problems associated with accelerating scientific-technical progress and strengthening labor and technological discipline.

A reduction has been noted in the number of complaints regarding products produced.

Order has been restored at many plants in design and technological documentation. Such documentation has been made to conform to existing standards and other normative-technical documents.

The technical control service has been activated noticeably. In practically all areas where state acceptance is in operation, the leaders of enterprises have begun to devote more attention to the needs of this important plant service: input control work is being organized, new personnel are being assigned to the OTK and plans for the technical re-equipping of the OTK are being developed. Some areas have even started implementing these plans.

A search is underway for new forms of interaction with the suppliers of materials and purchased products. Work in connection with the handling of complaints is being organized.

Order is being restored to the experimental and testing base and to the use of measurement equipment and instruments.

Unfortunately however, the work is not being handled in this manner in all areas. The task of reviewing and correcting technical documentation is still being carried out slowly and measures are not being undertaken aimed at maintaining measurement and testing equipment in the proper condition.

A serious shortcoming is the irregular manner in which products are being delivered for state acceptance. For example, in a leading PRAVDA article entitled "Initial Lessons of State Acceptance" (4 February), it was mentioned

that the Leningrad Car-Building Plant, the Kiev Bolshevik Plant and the Baku Plant for High Voltage Equipment for all practical purposes did not supply state acceptance with any products during the first 10 days in January, whereas the Kazan Compressor Plant, the Aleksandriyskiy Hoisting and Transport Equipment Plant and the Minsk Motor Vehicle Plant, during the last days of January -- from 60 to 80 percent of the output for their monthly plans.

In a report delivered before the January (1987) Plenum of the CPSU Central Committee, the general secretary of the CPSU Central Committee M.S. Gorbachev stated: "...The process of having the personnel master modern managerial methods and approaches in their work is a difficult one and one which is fraught with painful phenomena and relapses into old situations. A clear example of this is the introduction of state acceptance. Workers have been found who in the face of high requirements have shirked their responsibilities. Instead of undertaking to improve quality, they began confusing matters both for themselves and for others with all types of complications, conflicting situations and even the halting of plants."

And truly, some leaders have started blaming state acceptance for their own organizational derelictions. Instead of treating old production "diseases," they are searching for the means for applying pressure to state acceptance workers, in the belief that the threat of non-fulfillment of the plan will force non-departmental control to close its eyes in like manner as the OTK did up until recently. Examples of such situations at the Gorkiy Television Plant imeni V.I. Lenin, at a plant for radio equipment in Dagestan and others have appeared in the press.

Under these conditions, a special demand is being imposed upon the high principles possessed by the state acceptance workers, upon the validity of their requirements and upon the sequence for implementing state policy in the area of output quality. But a considerably greater demand must be imposed upon the production commanders. They must be held responsible before the state for their own blunders, for inaction and for the absence of discipline.

One very important question is that of establishing the style for interrelationships between state acceptance and the management and collectives of enterprises.

Incidents in which leaders attempt to undermine their own OTK and its workers instead of furnishing assistance to state acceptance and to close the ever widening breach in the personnel structure for controllers by means of USSR Gosstandart examiners are well known.

It bears emphasizing once again that state acceptance does not duplicate the OTK and that it is numerically smaller. It has other tasks -- to ensure non-departmental control and the acceptance of products already accepted by the OTK. State acceptance, without opposing the plant services, conducts a joint campaign with them for the delivery of high quality materials and purchased products (with the participation of gosnadzor organs) and for the establishment of order and discipline in production.

Recently the leaders of Gosstandart have issued many statements to journalists by way of explaining the operational features of the new service. Extensive discussions took place on the statute for organizing the work of state acceptance (RD 50-612-86) and GOST [state standard] 26964-86 "Rules for the State Acceptance of Products. Principal Conditions." Nevertheless, there are many experimental aspects to this work. Indeed, state acceptance is still not in operation at all enterprises. Thus, importance is being attached to thoroughly analyzing accumulated experience, including all publications in which opinions are expressed concerning improvements in state acceptance work and problems associated with its interrelationships with plant services are brought to light.

On 21 January , the USSR Council of Ministers examined the status of affairs with regard to raising the quality of products and introducing state acceptance. It was noted that the introduction of state acceptance is not being carried out in a sufficiently organized manner at some associations and enterprises. This is occurring owing to the fact that many economic leaders are applying themselves to the important task of introducing state control over the development and implementation of specific measures associated with converting associations and enterprises over to the new principles for accepting products. As a result, the newly created organs of state acceptance quite often are unable to find support and this adversely affects their harmonious operations with enterprises in solving the overall problem of raising the quality of products."

During a meeting of the USSR Council of Ministers, special mention was made of the fact that live work by state acceptance is at times being enveloped by formalism. It was emphasized that the old methods, conservatism and bureaucratic fuss are absolutely incompatible with measures being undertaken at the present time for the purpose of raisyng quality. The live work by organs of state acceptance must not be undermined by the preparation of numerous summaries and reports.

A check carried out by Gosstandart in December 1986 and January 1987 revealed instances of formalism and excessive paperwork within the organs of state acceptance and in organizations which have been assigned to help out. For instance, in state acceptance at the Kiev factory imeni Lepse of the Production Organization "Kievtraktorodetal" [Kiev Tractor Parts], the daily list from OTK on production which has been received comes to 72 pages. At the Rostov factory "Elektroinstrument" 32 accounting journals are being utilized.

A number of measures have now been enacted in the struggle against paper proliferation.

A USSR Gosstandart order of February 10 notes that such instances of bureaucratism are unacceptable and, moreover, that GOST 26964-86 and RD 50-612 provide for a flexible accounting system which allows a state acceptance director to simplify many procedures.

Gosstandart has instituted a single system of 10-day operational accounting by only three indicators; has planned to optimize and simplify accounting documentation; and has required that local state acceptance directors

establish a procedure for accounting documentation which conforms with guideline documents and production specifications.

State acceptance directors have also been ordered to instruct their personnel and OTK enterprise workers in correct interaction in work and nonformal observation of established procedure for accepting products.

Directors of territorial organs are forbidden to request information from state acceptance organs which does not conform to established accounting procedures.

So work is proceeding. The problems are many and complicated. Here we have touched basically those upon which Gosstandart itself works, but there are also problems such as review and establishment of scientifically based processes in production, which state acceptance has declared to be necessary, the perfection of wage payment systems, and other problems. All of these are very difficult problems and they must be quickly resolved during the transition to complete cost accounting [khozraschet]. The question of further expanding the number of enterprises at which state acceptance is required is currently being discussed.

The primary conclusion of the first months of work is that state acceptance is a strong but necessary means to accelerate restructuring.

7026
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SELECTED MATERIAL ON STATE ACCEPTANCE OF PRODUCTION

Increased Use of State Acceptance

Moscow IZVESTIYA in Russian 21 Apr 87 p 2

[Article by V. Vukovich, special IZVESTIYA correspondent, Lvov: "Demand for State Acceptance"]

[Text] Several months ago, when state acceptance was introduced into operations in the form of an order from on high, no counter proposals were heard: it was as though they wanted it introduced for us. To the contrary, there were those who believed that to request independent guardians of quality was to invite disaster. A preference was shown for a tamed OTK [Department of Technical Control].

However, time, a kind teacher, dispels the fog of distrust of new developments. We became convinced of this fact at the Lvov Ceramics Plant. Here, during a meeting of the party bureau, a speech was delivered by a head of department V. Sobeckho:

"There can be no doubt but that if a state acceptance service had been working for us, we would have achieved more rapid success in solving many problems."

Nobody raised an objection to this statement. Everybody was tired of coping with the production of low quality products. True, it is effective in countering the deficit. Even on bended knees, they beg for sub-standard products. Meanwhile, what can be done? New housing and multi-story buildings cannot be erected in the absence of panels for finishing off walls and floors or wash basins and toilet bowls.

What problems did V. Sobeckho have in mind?

"Modernization of the department for the finishing off of panels" stated chief engineer R. Kavuta, "was carried out 5 years ago. The task was one of increasing the capabilities. They were increased. In return, the quality of the output declined. Only 59 percent of the products being produced are classified as being of 1st grade quality. The department's sanitary engineering products are even worse. Twenty years ago, an experimental and praised at the time conveyer line was installed there. It could be referred

to as a "miracle of engineering" and yet more than one third of the processes were carried out manually. Hence, it came as no surprise to learn that only 31 percent of the products were of 1st class quality. Moreover, there were shortages in kaolin, gypsum and additives for enamel. Reliable spare parts and rigging could not be produced owing to obsolete equipment in the mechanical department. Finally, there was the OTK. Its staff was not very large. Not less than 10 more controllers were needed, especially at the junction points for technological processes."

"It turned out that the principal portion of our ceramics was of second and third class quality. Who would take it?"

"The trade categorically rejected it. Only the builders accepted it readily: they had no other alternative."

Thus the Lvov plant, as the saying goes, was ordered by God himself to be among the 1,500 enterprises where state acceptance was introduced. But it turned out otherwise. By order of the Ministry of the Construction Materials Industry and with the consent of Gosstandart, it was introduced not here but rather at the Lvov Raduga Association, which produced high quality dishware from crystal and colored and colorless glass.

The Raduga Association has an authoritative firm mark. Its collective of 38 sections is a winner in all-union and intra-branch competitions. They showed me advertisement prospectuses from the U.S.A. and Japan -- proper credit is being given to the products produced by our glass workers. In all, deliveries are being carried out to 15 countries throughout the world and there has been no criticism concerning quality. Nor have there been any complaints from internal consumers over the past 4-5 years.

"With regard to production organization and the quality of output" stated the leader of the local service of state acceptance A. Pashkov, Raduga is a very satisfying enterprise."

We examined the figures together with the above leader. During the past quarter, 98.2 percent of the output was turned over upon initial presentation. Following additional processing beyond the gates of the enterprise, 2,700 rubles worth of goods or 0.03 percent of the output produced was not released.

Certainly, an independent service will find work for itself. Concern was displayed for ensuring that each working position had standard models, certain items of technical documentation were defined more precisely, the opinion of suppliers was sought with regard to improving the cast iron press-forms and so forth.

But a fact still remains a fact: the output of the Raduga Association is of good quality and competitive in foreign countries and it continues to be that way. On the other hand, the quality of the products of the ceramic plant discussed above was less than satisfactory. During the introduction of state acceptance, this enterprise clearly was not selected during the first stage. Obviously, there were those who wished to avoid complications and create the appearance of success. However, state acceptance at the ceramics plant would

have justified itself in all respects. The independent guardians of quality would have uncovered the poor workers and various bottlenecks. There would have been no rest for the ministry's workers and yet in return there would have been profit and not losses for the state.

These lines were dictated by a desire not to place one enterprise in opposition to another, but rather to force them to think. In the final analysis, the work will produce a situation in which all of the industrial associations and enterprises will be included in non-departmental quality control. But during the present stage, state acceptance must be introduced into operations mainly in those areas where it is most needed. Unfortunately, an examination has yet to be undertaken of the campaign approach for this important measure for raising the quality of products. Consideration must be given to the real practical needs and to increasing the number of collectives controlled by state acceptance.

In our case, it is not too late to correct the mistake. And not only must we correct the mistake, but in addition we must draw a lesson for the future.

Control Over Product Quality

Tallinn SOVETSKAYA ESTONIA in Russian 29 Apr 87 p 3

[Article by Ya. Tolstikov: "A Phenomenon of State Acceptance." first two paragraphs are source introduction]

[Text] Narva-Tallinn--Thus, still another new work has entered our life. In all, from three to six months have passed since this non-departmental control over quality was introduced into operations at a number of enterprises throughout the country (at 14 in the republic). And the same comment is being heard in all areas. State acceptance has helped and it is promoting and forcing better work. Thus, should we take pleasure in this fact and has a panacea been found for poor work? Yes, it has helped beyond any doubt. But there is something about this general enthusiasm (all too often it was manifested in vain in the not too distant past) that is somewhat alarming. Is it not too early to shout "Hooray" and to rush into a bright and defect-free future bearing a banner with the words "state acceptance" inscribed on it? And so rapidly that the flags with the words "OTK" [Department of Technical Control], "gosnadzor" [state supervision] and "trade inspection" remained far behind. At the very tail of the column, the minuscule terms "economic levers" and "cost accounting" are scarcely visible.

And if we show no haste with categorical conclusions? Will we be able to handle our current problems in a calm manner?

The Narva Furniture Factory has attracted attention by virtue of the fact that it was here, according to testimony by ministerial leaders which coincided with the opinion of the Estonian Republic Gosstandart [State Committee for Standards of USSR Council of Ministers], that fine preparations were made for the introduction of state acceptance.

Distinct from other enterprises such as a combine at Pyussi, Talleks, the RET Association and Estoplast, large disruptions in the delivery of products upon initial presentation, either at the end of last year or during the first quarter of 1987 were observed here. Certainly, Narva had its own complications which we will mention. But there were no large deviations from the norm either in one direction or the other. The leader of state acceptance at the combine, L. Karlova, prior to her assignment to this position, worked as the chief of a large (and if you please, the enterprise's most important department) soft furniture department. She is an experienced and well respected member of the collective. And this personnel detail is of importance.

In short, we have here a very typical situation.

Thus, what did state acceptance do for the enterprise? Following the traditional plan, I sought the opinion first of all of the production workers themselves in this regard.

M. Kholostykh, a brigade leader in the soft furniture department (the collective headed by him has an OTK stamp): "Earlier, we worked fairly well. But we were affected by state acceptance. Out standards improved and there was a reduction in slovenly work. Earlier the lamp pedestals from the second department were of low quality and state acceptance helped to bring about improvements in this work. However, state acceptance must exert a greater influence on the suppliers. For example, the Tarmel Combine sends us low quality polyurethane cushions. And at times they do no supply any whatsoever. It becomes necessary to send the brigade home for lack of work."

S. Mikhaylushkin, a foreman in the same department:

"Responsibility has increased with the introduction of state acceptance. How is this expressed? It was expressed in the fact that drawings were prepared in a high quality manner. Whereas earlier, the work was carried out almost blindly. Changes were introduced in the design of the furniture and these changes were not reflected in the technical documentation. Today the degree of roughness is only negligible. Quality control at the combine has improved. Only the suppliers, for one reason or another, do not wish to understand this fact. The Tallinn Plywood-Furniture Combine continues to send bent-glued products, the Tarmel Combine -- spring units for sofa-beds."

Yu. Nikandrov, chief of the soft furniture department:

"Earlier, we simply did not take note of many shortcomings and I knew my predecessor well -- the chief of the department clearly lacked sufficient time in all respects. They did not notice any problems simply because they did not wish to notice them and our chief task is furnishing a plan. With the introduction of state acceptance, they began devoting more attention to the problem of quality. We are now carefully checking the linear dimensions of the furniture, we are looking for cracks in the framework and for proof that the mechanism for raising the back of the sofa is operating properly and so forth."

P. Maran, chief of administration for the furniture industry of the republic's Minlesprom [Ministry of the Lumber Industry]:

"State acceptance has turned the consciousness of each individual to his own misfortunes and mistakes. Whereas earlier it was assumed that the fault rested with all who were attached to an enterprise-supplier, today more thought is being given to the problem: how am I working and am I doing everything to ensure quality? Certainly, this applies to the Narva Furniture Combine. The technical conditions began to be observed in a more strict manner."

This was all very good. A journalist asked and he was answered at the enterprise and in the ministry as to why it was necessary: state acceptance is a blessing. But if one departs from the beaten path and asks such a question: will it not turn out that the introduction of the service for non-departmental control will lower the role played by the quality controllers at the enterprise? From all areas, one hears (and, as you can see, the Narva Furniture Combine was not exception) that state acceptance uncovered neglect in the normative-technical documentation. Indeed, this is a reserve lying on the surface.

A statement contained in the decree of the CPSU Central Committee entitled "Measures for Radically Raising the Quality of Products" is recalled in this regard: "Workers attached to the technical control service must carry out in a strict manner their chief task of preventing the production of products which do not conform to the normative-technical documentation and they must wage a decisive campaign against bungling workers and violators of technological discipline."

We emphasize that the above is the chief task. Thus, we must not beat the kettle drums and praise the new service, but rather we should analyze first of all why the quality was so poor and so many shortcomings observed at the enterprise despite the aid of our own controllers.

If the OTK workers are to acquire a real opportunity for exerting an effect on production and for preventing defective work, then a governmental decree must provide better coordination of the wages and incentives for their work with the results of the economic activities of enterprises. The only criterion is the quality of the products being produced. Ten months passed following adoption of the document. What was done in connection with implementing it? No changes were observed at the Narva Furniture Combine.

"True, the OTK formen were removed from subordination to the leaders of departments" related the chief of this department M. Krasilnikova, "Today they are included on our staff.. And this was a correct measure. Under the new conditions, foremen are able to evaluate the work of production workers in a more objective manner. Meanwhile, the bonuses for OTK workers, just as in the past, are dependent upon fulfillment of the sales plan. If there is no volume, there will be no bonuses. I am aware that a new statute exists, but it is still only in draft form. Nothing has changed on the official schedule."

What is the problem? The chief of the combine's OTZ [labor and wages department], S. Sharygin, admits quite frankly:

"Within the ministry, they are displaying no haste in issuing recommendations, nor are we in any hurry. Thus, we are still in debt to our quality service.

The plans call for the new wage conditions for OTK workers, including bonuses, to be introduced at the combine during the coming months. Nevertheless, a certain impression has formed: they are in no special hurry to improve the wages of their own quality controllers, since the non-departmental control service is already in operation. Such a stand taken by the ministry is hardly in keeping with the interests of the work.

At the combine, many complaints have been heard addressed against the suppliers of materials and completion parts. And in this instance, as we already know, voices are being heard: where is state acceptance looking? Meanwhile, the implementation of input control over product quality is the direct responsibility of the OTK workers. It would be wrong here to set one's hopes only upon state acceptance. There are also economic levers which make it possible to exert proper influence on the suppliers. But how are these levers being used?

A lawyer for the combine, V. Lall, who worked for many years at the enterprise, categorically stated:

"If we employed all of the economic levers at our disposal in a reliable manner, there would be no need for state acceptance."

The Narva furniture workers are addressing complaints not only against enterprises in their own branch -- Vilyandi Timber Combine, the Pyussi Combine for Fibreboard Panels, the Tarmel Combine and TFMK, but also against the suppliers of glue and lacquer which are located outside the republic. The claims with regard to the quality of products being received are serious ones and at times, as already mentioned, production has to be halted. The quality of the spring units being produced by the Tarmel Combine is such that at times they cannot endure 2-3 sittings on the sofa-bed in which they are installed. The lacquer being received from Cherkessk produces hidden defects and "flaws" on the surface of walls or doors and this is unacceptable as far as the GOST [state standard] is concerned. On the day of my visit at Narva, an entire delegation from Vilyandi was there -- the Narva workers had a batch of cushions produced at the Tamosh Timber Combine rejected. This list could be continued.

There are truly many complaints. But they are oral complaints for the most part. As a rule, there are no economic consequences for the suppliers of rejected products.

Meanwhile, there is a fine statute concerning deliveries of consumer goods (also concerning deliveries of products of a production-technical nature), approved by a decree of the USSR Council of Ministers. The statute protects from an economic standpoint the interests of the party which sustains a loss from a delivery of low quality products.

"The party which violates a contract" it is stated in the statute, "makes reimbursement to the other party which suffered a loss. These losses include expenses borne by a party in connection with non-fulfillment of his obligations and also the income which it would have received if the other party had carried out its obligation.

As you can see, we do not have in mind here merely the value of a low quality spring unit or cushion. The list of losses subject to reimbursement must include the value of an entire suite of furniture if as a result it was not produced on schedule. The loss should be recorded and a fine levied against the guilty party. But this is not being done!

"I have worked as a lawyer at the combine for 15 years" continued V. Lall, "But I cannot recall one occasion when the combine took advantage of this rule."

The work involves some curious happenings. In 1986, five documents were prepared certifying to the low quality of shaped veneer obtained from TFMK, with a fine of 2,800 rubles being levied upon the Tallinn workers. But subsequently this money was returned to the bungling workers: use was found for the veneer at a combine in Narva. Quite often the furniture workers receive rejected fabric from the Krengolmakaya Manufaktura Combine. And what happens? On not one occasion were fines levied against the textile makers. The furniture workers could only ask for the unsuitable products to be replaced.

In short, the production workers do not wish to spoil their relationships with the suppliers. And this phenomenon is being observed in all areas. It is considered to be unethical and insulting to instigate legal action against one's partner. Certainly, where shortages exist, a supplier may be more demanding in his terms and a customer may receive nothing at all. The threat of this happening tends to reduce the possibility of fines being levied.

It is my opinion that the chief concern is an all-is-forgiven attitude in the interrelationships between the consumers and suppliers. The situation is unacceptable in those areas where genuine cost accounting is in operation!

Such delicate handling of those guilty of producing defective products is also observed within an enterprise. As is known, a fine can be levied against that individual who produced a low quality product in order to provide reimbursement for the damage sustained by an enterprise. The amount of the fine can be as high as the average monthly earnings of a worker or specialist. This rule is well known to lawyers and production workers. In actual practice, it is employed only weakly. The administration is limited to mere pin-pricks. The fines for defective products amount to 4-8-10 rubles and only rarely more than this amount. Over the past year, fines were levied against only 35 individuals, with the fines amounting to 607 rubles. When one considers that the losses from defective products during this period amounted to tens of thousands of rubles, it is easy to understand: a truly compassionate attitude has developed at the enterprise for bungling workers. It is a type of kind-heartnedness at the expense of the state.

FIELD WORK PROGRESS, CROP CONDITIONS IN BASHKIRIA, KURGAN

Fall Work in Bashkiria

Moscow PRAVDA in Russian 6 Oct 86 p 1

[Article by PRAVDA special correspondents V. Prokushev and I. Shatunovskiy]

[Excerpt] Bashkir ASSR--The shortage of equipment is still delaying the cultivation of the fields, which inevitably reduces the harvests.

Much work has to be done in the cultivation of strong and valuable varieties. There has still been little grown and sold to the state. Not all varieties meet the requirements of local conditions.

Available reserves of organic fertilizers are practically exhausted. This means that it is necessary to exploit local peat bogs more actively. There are many acid soils and their liming is going slowly. And far from everything possible has been done in the agrochemical cultivation of the fields.

This year's harvest is in the bins. But the farmers are already thinking about the future. It is necessary to convert a half million hectares, or more than half of the entire plowed area, to intensive technology. Winter crops have already been sown on 653,000 hectares and the working of the soil, application of fertilizers and preparation of seed are in full swing.

The grain growers of Bashkiria have set for themselves the task of raising the gross harvest to 6.5 to 7 million tons by the end of the five-year plan.

Repair Problems Noted

Moscow IZVESTIYA in Russian 28 Mar 87 p 2

[Article by IZVESTIYA correspondent A. Zinovyev: "No Spare Parts. We Are Sending...a Fine"]

[Text] Bashkir ASSR--March is counting down its last days and it will soon be time to go into the fields. Do the farmers of Bashkiria have everything ready for this?

Not all, unfortunately. Judging from a report, the pace of the repair of farm machinery, for example, is lagging behind last year's. And this inherent law is also observed: in those rayons where the area of the spring plowing is greatest, the readiness of machinery and implements is lowest. They are especially far behind in repair work in Arkhangelskiy, Baltachevskiy, Belokatayskiy, Blagoveshchenskiy and Burzyanskiy rayons.

Mechanics in Gafuriyskiy Rayon still have to prepare sixty tractors for field work and most of them are at the repair and machinery enterprise. Not only the pace of the work is disturbing here but the quality as well. And how can the quality be high if the repair and machinery enterprise has vacancies in the positions of inspecting engineer, production engineer and flaw detector and no one is in a hurry to bring in these extremely necessary specialists? In addition, in the opinion of the director of the repair and machinery enterprise Sh. Giniatullin, the absence, let us say, of an inspecting engineer raises the responsibility of repair workers for quality. In practice, there is a complete lack of responsibility: they accept and issue equipment at the enterprise when they have to.

The question of the preparation of trailer and tractor-mounted implements in the rayon remains acute. According to reports, they were counted as being fully restored back at the end of last year. But familiarity with the local situation showed that the mechanics at Rossiya and imeni Lenin kolkhozes and Zabelskiy Sovkhoz are just now starting the repair work.

I witnessed the following scene: the leaders of the repair brigades headed by foreman F. Muslimov approached V. Berdnikov, director of the Chishminy Repair and Machinery Enterprise, and put on the table a statement requesting that urgent measures be taken. The fact is that the enterprise administration is failing to fulfill the agreement with contract collectives and is not supplying them with spare parts, so that people are forced to sit around idle. The statement included a long list of these components: stuffing boxes, pinions, bearings, washers, supports.... Just because of the lack of needed spare parts, repair workers cannot begin to repair T-4 tractors, for example.

"Yes, such components are lacking, although we were supposed to receive them from first quarter stocks," explains V. Berdnikov. "Today I am going to agricultural supply [agrosnab] again."

In the corridors and offices of agrosnab, one can see many "delegates" who have come here with one objective, to shake out and accelerate deliveries. But it is hardly possible to find in the warehouses of this service what was not received from suppliers.

In the first quarter, for example, the 10th State Bearing Plant (Rostov-on-Don) failed to meet the deliveries of spare parts for DT-75 tractors. And this is already becoming a tradition for this enterprise: last year the enterprise barely half fulfilled its obligations to the Bashkiria agroprom. The Urals Motor Vehicle Plant (in Miass) has not yet given the republic a single one of the 70 cylinder blocks for ZIL-157D and ZIL-150B automobiles foreseen by delivery funds. The Bashkiria agroprom has repeatedly sent vehicles there but they returned empty.

It is sometimes worse than that. Bashkiria repair workers waited impatiently the entire first quarter for 4,700 cultivator teeth and tines that the Krasnyy Aksay Association was obligated to deliver. But instead of the extremely necessary parts, what you think they received after waiting so long? A tenth or a hundredth part of the teeth and tines? Nothing of the sort! It is not even imaginable but they thought of it: instead of the parts, the association sent...the entire sum of fines for the nondelivery of its output. They were saying, in effect, take your money and do not harbor any false hopes. How unfortunate: you cannot fix a cultivator with rubles.

The Tashkent State Bearing Plant is failing to deliver bearings in accordance with first quarter funds. For this reason alone, 600 tractor carts have piled up just at the Ishimbay Specialized Repair Enterprise.

Meanwhile, spring is not waiting and you cannot hide behind fines in the sowing campaign to begin soon. When do the collectives of the enterprises of the Ministry of Tractor and Agricultural Machine Building, Minzhivmash, the Ministry of the Automotive Industry and the Ministry of the Chemical Industry intend to give back to the farmers their excessively high obligations?

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Weed Reduction Experiments Performed

Moscow KHIMIYA V SELSKOM KHOZYAYSTVE in Russian No 10, Oct 86 pp 71-73

[Article by T.N. Bashkirova, candidate of chemical sciences, Research and Technical Planning Institute for Liquid Fertilizers; and O.V. Padtseva and L.V. Baranova, Biology Institute of the Bashkiria branch of the USSR Academy of Sciences: "Dynamics of the Accumulation and Breakdown of Triallat in the Soil and in Plants"]

[Text] Wheat and barley are the leading grain crops in the Bashkirskaya ASSR. Weedy fields lead to a significant reduction in the yield of these crops--by 2 to 3 quintals or more per hectare under average weediness.

At the present time in the plantings of grain crops, weeds resistant to 2,4-D have become widespread: Galeopsis, thistle, hen's millet, gray and brown bristle grass, and others. Particular attention needs to be paid to the fields infested with wild oats, which has been found almost everywhere in recent years.

In the system of measures for combating wild oats, much importance is being given to the use of chemical plant-protection agents. In the fight against wild oats in the plantings of wheat and barley, the herbicides triallat and karakhol have been most widely used.

The utilization of chemical plant-protection agents foresees the ongoing monitoring of the accumulation of residual quantities of these agents in the soil and the output of plant growing, taking into account the special features of the soil, the means of application, doses, etc.

To determine the dynamics of the accumulation and breakdown of triallat in the soil and plants, field experiments were carried out in the years 1983 through 1985 on the plantings of Moscow 35 spring wheat and Donetsk 6 barley at the Kazangulovskoye Experimental and Demonstration Farm of the Bashkiria Research Institute for Farming and the Selection of Field Crops. The soil is leached chernozem. The experiments were repeated four times. The size of the experimental plots was 216 square meters.

Samples of soil and plants were taken from the time of the application of triallat to the harvest of the crops in accordance with their development phase. They performed the analyses at the Bashkiria Republic Toxicological Laboratory.

When triallat was applied, the weediness of the plantings declined by an average of 93 percent.

The application of this compound permitted the following increases in grain yields: 6.3 quintals per hectare for wheat (with the yield in the control version being 20.3 quintals/hectare) and 6.8 quintals per hectare for barley (with the yield in the control version being 27.3 quintals/hectare). The increases in the yield were obtained through an increase in the survival rate of the plants and through greater productive bushiness, grain content in the ear and mass of kernels per ear.

The experiments performed make it possible to say that on plantings of barley and wheat heavily infested with wild oats (more than 1,000 plants per square meter) the application of triallat leads to the destruction of weed growth and helps to obtain good yields of high-quality grain.

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Farmers Preparing for Spring

Moscow SELSKAYA ZHIZN in Russian 19 Mar 87 p 2

[Article by I.Shevchenko: "For a Ponderable Ear"; first paragraph is SELSKAYA ZHIZN introduction]

[Text] Kurgan Oblast--Frost still prevails in the Trans-Ural Region. But the time is not far off when the land will throw off its blanket of snow and the field work will begin.

Farmers are diligently preparing to go out into the fields. They have begun to treat seed at kolkhozes and sovkhozes and the last repaired tractors and pull-type implements are leaving the shops. The farms are accumulating fertilizers.

Trans-Ural farmers intend to harvest no less than 19 to 20 quintals of grain per hectare this year and even more than that at advanced farms.

Terentiy Semenovich Maltsev, speaking recently at a seminar of rayon journalists, said in response to a question about the special features of this spring:

"It is difficult to say whether it will be favorable or not. To a large extent, this depends upon us. We must always be prepared for the unexpected and take into account the fact that we have to work on an area that has not been prepared since the fall. There were surprises last year, including abundant precipitation. A drought could be another such surprise. Here it is necessary to work utilizing the equipment that is employed in such cases. There must also be the appropriate agricultural technology. One must be attentive to seed and remember that sections free of weeds and wild oats have to be sown earlier. As Mikhail Sergeyevich Gorbachev said, we cannot remake the weather but must make skillful and full use of the conditions that the weather brings."

There was a time in the Trans-Ural Region when only 10 millimeters of precipitation had fallen through 9 August. Under these conditions, the fallow field played a role of its own. They obtained 18 quintals of grain per hectare from the fallow fields of Zavety Lenina Kolkhoz and they did it without applying mineral fertilizers.

The rural workers and their partners intend to take on any kind of weather conditions in the spring. They are mobilizing themselves as well as physical resources to obtain a good harvest.

Spring Demands on Farmers

Moscow SELSKAYA ZHIZN in Russian 22 May 87 p 1

[Article by I. Shevchenko, non-staff correspondent: "In Full Swing"]

[Text] Kurgan, 21 May--The grain-growing spring in the Trans-Ural Region began with difficult weather conditions. The high waters of the rivers are falling slowly and high air temperatures over 3 days clothed the forests and birch groves in green. The fields are excessively moist. The farmers have to lower their moisture content, harrow and then sow early crops.

Under local conditions, wheat must be placed by 25 May and all other crops by the beginning of June. The farmers of Tselinnyy, Safakulevskiy, Ketovskiy and other rayons are performing this work at the fastest pace. It is not a matter of days but of hours and minutes.

Spring Field Work Continues

Moscow SELSKAYA ZHIZN in Russian 24 May 87 p 1

[Article by I. Shevchenko, non-staff correspondent: "On the Farms of the Trans-Ural Region"]

[Text] Kurgan, 23 May--The weather is still having a negative impact on the course of field work at the kolkhozes and sovkhozes of the Trans-Ural Region.

Nevertheless, the sowing campaign is gaining speed from day to day. The farms are sowing wheat, corn and other crops and are planting potatoes and cabbage. The most successful work is being done in Safakulevskiy Rayon, which obtains goods harvests every year.

Kurtamyshskiy, Ketovskiy, Shchuchanskiy, Petukhovskiy and other rayons are expecting good news from the fields.

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FIELD WORK PROGRESS, CROP CONDITIONS IN OMSK, NOVOSIBIRSK

Application of Intensive Technology

Moscow ZEMLYA SIBIRSKAYA, DALNEVOSTOCHNAYA in Russian No 1, Jan 87 pp 18-20

[Interview with Eduard Ivanovich Kamerlokh, deputy director of the Novosibirsk Oblast Agro-Industrial Committee, by special correspondent for ZEMLYA SIBIRSKAYA, DALNEVOSTOCHNAYA: "The Arable Land is More Abundant: Intensive Technology--How is Experience Being Introduced?"; first two paragraphs are source introduction]

[Text] The first agricultural year of the 12th Five-Year Plan has come to an end. For the farmers of Novosibirsk Oblast, despite the caprices of nature, it was a fairly successful year--over 1,250,000 tons of grain have been poured into state granaries. Success has been achieved thanks to extensive socialist competition related to the implementation of the decisions of the 27th CPSU Congress and of the country's Food Program, to the utilization of the achievements of science and progressive practices and to production intensification.

Last year in the oblast's enterprises spring wheat was cultivated on an area of 706,000 hectares using intensive technology. Spring wheat was sown on fallow, as the second crop after fallow and after other good predecessors. In the oblast as a whole each hectare of intensive arable land yielded 18 quintals of good-quality grain--5.7 quintals more than regular fields. The increase in gross yield comprised 402,000 tons.

[Question] As we know, any new initiatives, especially in agriculture, do not originate out of the clear blue sky. As a rule, they are preceded by many years of basic preparations. Eduard Ivanovich, what has been done in this regard in the enterprises of Novosibirsk Oblast?

[Answer] First of all, we have implemented various measures directed at the efficient use of land, at increasing field fertility, and at assimilating scientifically-based soil-protecting and moisture-retaining farming systems. At present such systems are in operation in every enterprise, most of which have accepted the planned structure of sowing area. Grains now occupy 54 percent of arable lands, feeds--30.5 and fallow--14 percent. All of this has had a noticeable effect on the quality level of farming.

However, far from everything has been done. In some enterprises and even rayons the structure of grain and feed fields needs improvement. Barley and legumes still occupy insignificant areas. According to the results of the 11th Five-Year Plan the oblast has remained in debt to the government as regards the procurement of many types of agricultural products, including grain. There is no doubt that drought during 3 years had an impact on the indicators for the five-year plan. But this was not the only factor. There were subjective reasons here as well--disregard for individual elements of the farming system and agrotechnical methods, violations in sowing technology, in crop care and in harvesting and so forth.

[Question] Within the system of various measures that facilitate improvements in the productivity of grain fields, fallow does not play the least important role.

[Answer] Yes, this is true. I could give you many examples in which well-prepared, fertilized fallow land that was cultivated carefully and on schedule yielded 7-10 quintals per hectare more than non-fallow predecessors. The enterprises of Ordynskiy, Novosibirskiy, Cherepanovskiy and other rayons can serve as an example here.

But this is not the situation everywhere. For example, last year in Chistoozernyy Rayon the average grain yield on fallow equalled 17.2 quintals per hectare; with other predecessors--14.8 quintals. As you can see, the difference was just 2.4 quintals. The same kind of picture has been observed in the enterprises of Dovolenskiy, Chulymskiy and some other rayons.

What can we say? The answer here is unequivocal--in an enterprise in which the fallow field is not fulfilling its main function, to provide a substantial increase in yield, there is no real master of land and the agronomist here is not fulfilling his direct obligations as a specialist, lawgiver and technologist of the grain field. The same can be said for RAPO [Rayon Agro-Industrial Association] specialists who are called upon to help enterprises with all their efforts and also to demonstrate strict demandingness concerning the assigned task.

[Question] The second important factor in the intensification of farming is the efficient use of organic fertilizers. According to the calculations of specialists, their reserves in the oblast equal about 30 million tons. How is this truly priceless treasure being utilized in enterprises?

[Answer] In analyzing this problem I must admit that although in recent years the volume of organic fertilizers taken into the fields increased somewhat (up to 2 tons per hectare), this is clearly inadequate. This work has been sharply curtailed by Kupinskiy, Kochkovskiy, Chulymskiy, Suzunskiy and other rayons. In order to have the needed amount of humus in plowland it is essential to apply no fewer than 3-5 tons of organic fertilizer per hectare to the soil.

We have good examples and the most interested attitude toward this work. Let us look at the enterprises of Karasukskiy Rayon. Here organic fertilizers are moved into the fields by large mechanized detachments and links, workers have

all the transportation and hauling vehicles they need and measures involving moral and material incentives for the fulfillment and overfulfillment of daily and 10-day assignments are implemented. Good production and living conditions have been created for machine operators and drivers. Over 400,000 tons of organic fertilizers have already been applied for the 1987 harvest. This work has been fairly well organized in Barabinskiy, Novosibirskiy and Ordynskiy rayons.

[Question] Intensive technology for cultivating spring wheat presupposes a high general level of quality in grain farming and the complete assimilation of all elements of scientifically-based farming systems--clean fallow, nutritionally-balanced organic and mineral fertilizers, the means for plant protection and technological discipline. With any one of them one will not be able to change anything and none of these can be neglected without bringing losses to the end result. Eduard Ivanovich, please describe the circle of organizational, economic, agrotechnical and other measures that are being directed at the more complete utilization of all these elements of intensive technology in enterprises.

[Answer] By means of a decision by the oblast executive committee each rayon, and by means of a similar decision by the rayon executive committee--each enterprise, has been assigned plans for cultivating spring wheat according to intensive technology. Here two equally important tasks are involved--to increase productivity on such lands and to achieve additional grain production within the range of 560,000 tons; moreover, this grain must be of the highest quality.

This responsible task was assigned to enterprises in more favorable soil-climate conditions with the best supplies of equipment and cadres. Intensive technology was employed by 372 enterprises (70 percent of the total) in 28 rayons. The largest areas were occupied in the steppe and southern forest-steppe zones, where economic conditions enable us to produce strong grain. For this purpose the oblast was allocated an additional 46,000 tons of mineral fertilizer with active substance, including 24,000 tons of phosphorus and 22,000 tons of nitrogen, as well as the full requirement of pesticides and other means of chemicalization.

We give a great deal of attention to the training of cadres. Each year we organize courses for directors and specialists of the rayon link or enterprise. There is a 48-hour program at experimental-production and scientific-research enterprises for directors and specialists of the rayon link and of enterprises in the middle production link, link leaders and tractor operators. Certification takes place on a high theoretical and practical level and on this basis people become qualified to cultivate spring wheat according to intensive technology. Last year 9,000 persons were prepared in this way, including 7,000 machine operators.

Among those who are best at introducing intensive technologies are the agricultural organs of Krasnozerskiy, Karasukskiy, Kolyvanskiy, Cherepanovskiy

and Barabinskiy rayons. At the same time this important matter was approached formally by the directors and specialists of Kochenevskiy, Chistoozernyy and Chulymskiy rayons. Here there was an acute shortage of machines and mechanisms for the preparation of mineral fertilizers, for loading them onto sowing equipment and for applying them locally to the soil. There was a poor organization by enterprises of courses for directors of the middle link and for machine operators. Their knowledge of the basic agrotechnical requirements on adjusting agricultural equipment, on basic technologies for using fertilizers and on plant protection systems was weak. Incidentally, it should be said that machine operators were even psychologically poorly prepared to carry out this important work. According to their understanding intensive technology represented a simple configuration of agricultural methods and not a turning point in farming. Unfortunately, some directors and specialists of enterprises thought this way too.

It must be clearly understood that intensive technology requires the unwavering fulfillment of three basic conditions--timeliness, consistency, and solid grounding. In order to produce stable harvests of high-quality seed it is important to fully consider the possibilities of the specific enterprise, the climate, the fields and the varieties; and to constantly "commune" with plants and fulfill their "desires" without delay.

People who are involved in intensive technology must be as familiar with this as they are with the multiplication table. Shortcomings in the training of cadres are especially intolerable. The machine operator decides the fate of the harvest and for this reason he must be completely familiar with all links of intensive technology. People must be trained away from production, in equipped offices and with practical experience, i.e. for the purpose of knowledge and not for that of loafing. In the time remaining before field work an analysis must be made on every field to make sure that all links of intensive technology and all technological operations are being adhered to; all pluses and minuses of this work must be brought to light. All forms of training for cadres--this is not a temporary campaign but a constant vitally necessary process.

[Question] Judging by reports from the country this year many enterprises and some rayons achieved solid growth in yield by means of the use of intensive technology while others, under almost equivalent conditions, achieved insignificant growth. What is the reason for such differences?

[Answer] In analyzing the effectiveness of utilizing intensive technologies for cultivating spring wheats we can draw the following conclusion--potential possibilities with regard to achieving a yield that corresponds to agroclimatic resources have not been fully utilized in the majority of enterprises. The main reason for this is the disregard shown for many links which comprise a single and indivisible chain, i.e. the very essence of progressive technology.

Oblast kolkhozes and sovkhozes applied an average of 74 kilograms of active mineral fertilizer per hectare in 1986. For the first time a new technological method was introduced--seed incrustation. Practice has demonstrated the high level of effectiveness of this method. On an area of

466,000 hectares chemical weeding has been carried out. The first steps have been taken to create an effective system of preventative controls, which through mutual ties encompass brigades, departments, enterprises, the RAPO and the oblast agro-industrial committee. With this goal in mind operations-dispatcher control was introduced for the cultivation of spring wheat according to intensive technology, which played a positive role in completing technological operations during an optimal period of time and with good quality. Harvesting was organized as never before and it was completed according to a foreshortened schedule. About 40 percent of the total amount of wheat grain delivered was of high quality.

We are critically evaluating the results of assimilating intensive technology. There were instances of violations and errors, especially when protecting plants from disease. Some enterprises of Zdvinskiy, Dovolenskiy and Tatarskiy rayons were faced with a shortfall in the harvest on intensive fields as a result of lateness in treating crops against diseases, which were present on considerable areas last year.

The high level of effectiveness of utilizing the entire complex of intensive technology has been confirmed by the results of studies which were made jointly with scientists of SibNIIZKhim [Siberian Scientific Research Institute of Agricultural Chemistry] in six different soil-climate zones within the oblast. In particular, in the tests in Bolshevik Kolkhoz of Ordynskiy Rayon the increase in yield resulting from fertilizers equalled 8.7 quintals per hectare with a yield of 28 quintals per hectare utilizing regular technology, and there was another increase of 10.6 quintals due to the use of protective means, i.e. a total increase of 19.3 quintals per hectare with a yield of 47.3 quintals per hectare. Simultaneously with quantitative changes the quality of grain also improved. In particular, intensive technology facilitated growth in the content of gluten to 32 percent as compared to 23 percent in the control.

A high level of growth in yield due to the complex of protective means is grounded first and foremost in preventing losses due to septoria leaf spot and at the late stages--to rust.

Thanks only to adherence to all links of intensive technology Marshanskiy Sovkhoz of Kargatskiy Rayon, Bolshevik Kolkhoz of Ordynskiy Rayon and Cherepanovskoye Experimental-Production Enterprise of Cherepanovskiy Rayon produced 28-33 quintals of grain per hectare on significant areas, which is 8-15 quintals more than with regular technology. At the same time a number of neighboring enterprises achieved insignificant growth or none at all. This includes Rossiya Kolkhoz of Bolotninskiy Rayon, Tabulginskiy Sovkhoz of Chistoozernyy Rayon and Ilinskiy Sovkhoz of Dovolenskiy Rayon, where intensive technology resulted in minus 1.5-3 quintals per hectare. One must then ask why bother to break a lance over this? What was the agronomist doing in the field if he could not achieve the planned harvest?

[Question] Varieties of the intensive type play an important role in the formation of maximal grain harvests with high-quality seed. Eduard Ivanovich, which varieties are preferred by the agronomists of your enterprises?

[Answer] We strongly feel that every enterprise should have a minimum of 2-3 varieties differing in vegetative period and other economic-biological characteristics. Under our conditions we must do everything possible to increase the proportion of average-maturation and rapidly-maturing varieties and to have available information about their optimal structure and ratio for each soil-climate zone. For example, in the enterprises of the forest-steppe we are expanding the area in Irtyshanka-10 wheat, which matures 3-4 days earlier than Novosibirskaya-67 and is resistant to sprouting on the root and in windrows. Irtyshanka-10 will occupy its worthy place together with locally-bred varieties Novosibirskaya-67 and Novosibirskaya-81.

Winter crops are also called upon to play a large role in the optimization of the structure of the grain field. It is also essential to expand the area in this crop. This will extend the period of harvesting and decrease its intensity, which will doubtless have a positive effect on the end result.

[Question] As we know, in late August of last year there was a meeting in Novosibirsk of the first secretaries of party kraykoms and obkoms, of chairmen of oblast and kray executive committees, of councils of ministers of union republics and autonomous republics, of chairmen and deputy chairmen of agro-industrial committees and of directors of administrations of grain products of Siberian krays, oblasts and autonomous republics. Examined at the meeting were questions related to strengthening the organizational and political work of party, soviet and economic organs which was directed at increasing the pace and quality of harvesting operations, at feed procurement and at preparing livestock for winter. The work of the meeting was widely covered in the press, on the radio and on television. But this was at the peak of harvesting. What results were achieved? What conclusions were drawn after the end of the agricultural year?

[Answer] For the farmer the harvest period is always both a celebration and a severe test. As we say, it isn't the grain that is in the fields but that which is in granaries that counts. As in previous years harvesting was completed in an organized manner by the field workers of Karasukskiy, Krasnozerskiy, Kolyvanskiy, Ordynskiy, Kochkovskiy and Ust-Tarkskiy rayons. Experience shows that in those enterprises which pay serious attention to the training of qualified cadres of machine operators, to the maximal use of the entire machine and tractor fleets from the very first days of harvesting operations, and to the proper selection of harvesting technology the harvest is completed in the shortest time and with minimal losses.

The oblast has dealt successfully with grain procurement plans. Some rayons have overfulfilled quotas considerably. Novosibirskiy Rayon has fulfilled double its quota. The greatest contribution in fulfilling this goal was made by Shilovskiy and Senchanskiy sovkhozes and Borovskoye OPKh. Posevnoye and Cherepanovskoye OPKh's and Iskra Sovkhoz of Cherepanovskiy Rayon also produced 27 quintals per hectare and more. As a result, state granaries received 1.5 times more grain from here than the plan called for.

The workers of Kupinskiy Rayon took on great socialist obligations prior to the beginning of harvest operations--to pour 1 million quintals of Kulundinsk grain into the homeland's granaries. To their honor it must be said that they

kept their word. Here we can single out Medyakovskiy and Sovetskaya Sibir sovkhozes among others. A significant quantity of above-plan grain was sold to the state by the enterprises of Karasuskiy, Ordynskiy, Chanovskiy, Suzunskiy and Ust-Tarkskiy rayons.

Today I would like to take the opportunity to once again congratulate the oblast's workers for their noteworthy labor victory--the fulfillment of the annual plan of grain procurement, and to wish them further successes in this noble work.

[Question] At the conclusion of our conversation, Eduard Ivanovich, let's summarize the main results of the 2-year experiment in using intensive technology for cultivating spring wheat in the oblast's enterprises.

[Answer] The oblast's agronomic service, together with scientists of the SO [Siberian Division] of VASKhNIL [All-Union Academy of Agricultural Sciences imeni V. I. Lenin], is making a thorough analysis of all our pluses and minuses, achievements and mistakes related to the further intensification of grain production. In general the experience of the last 2 years attests to the necessity of comprehensive implementation of measures which constitute the intensive technology for wheat cultivation and the provision of all resources in the optimal ratio. Enterprises and the RAPO have examined the results of the past season, have drawn their lessons from existing shortcomings, and have indicated measures to make sure that our intensive fields become the model for contemporary farming and that they provide the most significant increase in yield. For this already today land is being assigned to the best brigades and links working according to the principle of collective contracts. These brigades and links are being allocated the necessary amounts of tractors, soil-cultivation machinery, mineral fertilizers and pesticides. Strict adherence to technological discipline must become law on every field, and in every link, brigade, kolkhoz and sovkhoz. Precise and knowledgeable work is needed today on intensive fields, and not only from the period of sowing to that of harvesting but in the course of the entire year.

As we know, the new technology requires new machinery. Obviously there is a shortage of this. For example, there is a shortage of equipment for the preparation and loading of fertilizers into transportation vehicles, of sowers and of equipment for the disinfection of seed. There is inadequate land equipment for cultivating crops. The sprayers that are manufactured by industry are of low quality and dusters cannot stand up to any type of criticism. A great deal must be rebuilt and reworked in shops and smithies; we must make our own makeshift rivets. Of course, there is a great need for rapidly-maturing varieties that do not lodge and that are immune to diseases and pests.

Among the other unsolved problems is the inefficient distribution of annual supplies of mineral fertilizers. In connection with this enterprises cannot apply the fertilizers in the course of basic cultivation of fallow and instead are forced to apply them at a time that is not most opportune--in the spring

prior to sowing. We must also decrease the proportion of deliveries of mixed fertilizers--it is very difficult to utilize them according to cartograms under specific conditions.

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Status of Winter Crops in Novosibirsk Oblast

Moscow IZVESTIYA in Russian 29 Mar 87 p 1

[Article by A. Illarionov, IZVESTIYA special correspondent, Novosibirsk: "Winter Crop Duet of Siberia"; first paragraph is source introduction]

[Text] One of the last reports of meteorologists of Novosibirsk Oblast stated, "The wintering over of winter crops is proceeding well." How much worry and agitation among breeders, agronomists and workers of the agrometeorological service this scant report represents.

To determine the condition of winter crops small field areas are carefully cleared of snow and a "monolith"--a square section of soil with sleeping crops--is cut out. Slow thawing, patient germination and a count of the plants that have survived follow.

Isn't it surprising that somewhere in the southern part of the European section a portion of winter crops froze and perished while in the forest-steppe and taiga zones of Siberia they withstood temperatures of 40 below zero?

Here is the opinion of V. Shumnyy, corresponding member of the USSR Academy of Sciences and Director of the Institute of Cytology and Genetics of the Siberian Division of the USSR Academy of Sciences:

"Today we have at our disposal an adequate selection of new high-yield varieties of winter rye that are resistant to lodging. But most gratifying is the fact that rye has ceased to be the solo partner of the winter grain fields. Today Siberia's winter duet consists of rye and wheat. Our breeders have concerned themselves with wheat's winter hardiness and in a matter of years they have moved it a few thousand kilometers to the east in the country. The new varieties are the basis for satisfying changes. Today it is no less important to eliminate the psychological barrier in the consciousness of farmers. For about 6 years ago all you had to do was hint at the necessity to increase winter fields in Siberia to have everyone look at you like you were a dangerous eccentric. Today, however, winter crops are officially recognized as an important reserve for increasing grain yield."

Scientists mention different figures for possible increases due to increasing the area in winter crops. But it all comes down to the fact that we are talking about a million tons of high-quality grain. What is the advantage of winter crops?

The following is the opinion of P. Goncharov, president of SO VASKhNIL:

"The short Siberian summer and the shortage of moisture often limit the yield of spring crops quite severely. Winter crops fully utilize the abundant spring moisture, providing stable productivity and growth in grain production."

What has been said is convincing, if of course scientists are not overestimating the results of their efforts. But after all the conclusions of science are confirmed through practical experience.

The following is the opinion of M. Orel, administrative chairman of Kolkhoz imeni Uritskiy of Suzunskiy Rayon, Novosibirsk Oblast:

"Here winter crops occupy about 1,000 hectares or one-fourth of all grain fields. Basically we sow the winter-hardy Korotkostebelnaya-Tetra rye variety developed by breeders of SIBNIIIRS [Siberian Scientific Research Institute of Rye Breeding]. As a result we begin harvesting in early August, a month earlier than usual. This helps to decrease the peak load during harvesting in September and to complete the harvesting of spring crops and silage crops more quickly and with better quality. On the average for a 10-year period we are threshing 5 quintals more winter crops per hectare than spring crops. As far as I can recall winter crops have also never been killed by frost. Our dream is to increase a kolkhoz's winter fields to one-third of total grain fields, and within winter fields to increase the area in winter wheat using new Siberian varieties."

Winter crops are not only providing additional grain, they also expand our assortment. For example, rye bread is made not in all Siberian cities by far although it is very healthy.

It would seem that there would be no doubt about the expediency of winter fields. But in the forest-steppe zone of Siberia, Uritskiy Kolkhoz is one of only a few which really work with winter crops. What is hindering their spread?

"Strange as it seems, it is the scientifically-based zonal systems of farming. In the RAPO it is said that we exceeded the optimal permissible size of the winter field long ago," explains M. Orel.

In the discussion with the deputy chairman of the oblast agro-industrial committee, E. Kamerlokh, it was made clear that on the one hand we must "be involved in a capital sense" in expanding the area in winter crops whereas on the other the area in winter crops in the oblast has almost reached the outer limit of possibilities. Although now winter crops do not comprise even 6 percent of total grain crops.

I feel that zonal systems in and of themselves are not an obstacle--an agronomist who searches will accept the recommendations of scientists not as dogma but as food for thought and as material that should be used creatively.

But it isn't just artificial approaches that are hindering work. For example, it has become clear that the oblast's winter fields are supplied with only two-thirds of the carryover seed they need. The situation is even worse as regards winter wheat seed. Two years ago a new variety, Albidum-12, was regionalized here, but to this day not one can tell me how much seed from this variety has been accumulated.

"Winter wheat in Siberia is something new. We must deal with it carefully," says E. Kamerlokh.

No one is arguing about that. But I feel that care that is natural in such cases and agronomic conservatism are not one and the same.

For example, in neighboring Omsk Oblast, having become convinced of its advantages farmers sowed Mironovskaya-808 winter wheat on over 40,000 hectares and do not consider it risky. In Novosibirsk Oblast the area in winter wheat is 10 times smaller. We have something to think about.

High-Yield Wheat Variety

Moscow SELSKAYA ZHIZN in Russian 3 Oct 86 p 3

[Article by P. Chernov, Novosibirsk: "Productive Wheat"]

[Text] Novosibirsk scientists have developed the average-maturation Lyutestsens-25 strong wheat variety and have submitted it for state variety testing. It is successfully passing the test on fields located in various zones of the oblast. The new variety meets the needs of intensive technology well. In competitive testing Lyutestsens-25 noticeably surpasses the previously-developed Novosibirskaya-67 wheat variety in productivity and matures earlier than it.

Farmers are giving high marks to the work of breeders who developed the productive strong wheat variety.

Stockpiling Seed

Moscow SELSKAYA ZHIZN in Russian 10 Oct 86 p 1

[Article by P. Chernov, SELSKAYA ZHIZN correspondent, Novosibirsk, 9 Oct: "Concern About Seed"]

[Text] The oblast's kolkozes and sovkhozes, having produced a good harvest of grain crops, have successfully fulfilled the plan for stockpiling seed. Choice seed has been procured in the enterprises of Baganskiy, Cherepanovskiy, Novosibirskiy, Kochkovskiy and other rayons. In addition to the selection of

food grain for sale to the state, kolkhozes and sovkhozes of Karasukskiy, Krasnozerskiy, Ordynskiy and other rayons are sorting seed.

The farmers of a significant portion of enterprises intend to bring seed up to high sowing condition for the celebration of Great October.

Shortage of Conditioned Seed

Moscow SELSKAYA ZHIZN in Russian 27 Jan 87 p 2

[TASS report, Omsk, 26 Jan: "Trial for Grain"]

[Text] Many kolkhozes and sovkhozes of Omsk Oblast are experiencing a shortage of conditioned grain seed. The unfavorable conditions of the past summer and especially the fall frosts, which damaged the immature spring crops, have had an effect.

Objective difficulties demonstrated the level of preparation of workers all the more clearly. Thus, the enterprises of Russko-Polyanskiy, Pavlogradskiy, Cherlakskiy and Bolsherechenskiy rayons cleaned, dried and stored on schedule practically all the grain that was earmarked for sowing. Many enterprises, as for example the enterprises of Okoneshnikovskiy Rayon, are still storing hundreds of tons of wheat seed and other grains in mixtures with weeds.

The government has provided considerable aid for the production of winter crops--a large quantity of seed grain comes from other parts of the country in exchange for food grain. The most important conditions for the new harvest are to complete all exchange operations, the testing of seed for germination capacity and preparations for sowing on schedule

Dealing with Heavy Snowfall

Moscow SOVETSKAYA ROSSIYA in Russian 15 Feb 87 p 1

[TASS report, Omsk: "During Severe Frosts Against Flooding"]

[Text] Hundreds of thousands of Omsk residents cleared snow from the city yesterday during a city-wide subbotnik [free work day].

Already today, with another 1.5 months of cold weather and snowstorms ahead of us, the depth of the snow cover exceeds 80 centimeters, or 1.5 times the norm.

Even today the abundance of snow is having a noticeable effect on the pace of city life. Roads are more narrow. Some neighborhoods have become blocked from roads by 2-meter snow drifts. Under the siege of snow we have kindergartens, schools, health facilities and bus and streetcar stops. The primary efforts of city residents are being directed at providing access for them; included in the work are over 800 trucks and hundreds of bulldozers.

Work on Future Harvest Continues

Moscow SELSKAYA ZHIZN in Russian 22 Oct 86 p 1

[TASS report, Omsk, 21 Oct: "Grain of the Irtysh Region"]

[Excerpt] Today while Omsk farmers are proceeding with above-plan sales of grain they are continuing to demonstrate concern for next year's harvest. They are completing the plowing of late-fall plowed fields and they are stockpiling the full amount of high-quality seed needed.

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RECOMMENDATIONS FOR INCREASING SOYBEAN CULTIVATION IN KAZAKHSTAN

Agrotechnology Application

Moscow SELSKAYA ZHIZN in Russian 15 Apr 87 p 2

[Article by Yu. Karyagin, head of the Department of Selection and Agrotechnology of Pulse Crops of the Kazakh Scientific Research Institute of Farming, the Kazakh SSR: "Soybeans Wait for Recognition"]

[Text] Providing livestock with protein-balanced feed is now the main problem in Kazakhstan's animal husbandry. There is a shortage of 500,000 tons of this feed in rations and little was done to eliminate it in the republic before last year. Even such a high-protein crop as soybeans, for whose cultivation there are good conditions, has not become widespread in the republic. This was discussed in an article published in SELSKAYA ZHIZN on 25 March of last year. The publication evoked a wide response and measures to increase soybean production were mapped out. In a year areas under them increased from 13,100 to 32,600 hectares. The average yield reached 14.2 quintals per hectare. A decision on the establishment of the Soya Scientific Production Association was adopted.

One can say that the ice has begun to break. This year areas under soybeans are to be increased 1.5-fold and by 1990, to 140,000 hectares. Kazakhstan should become the biggest producer of protein output in the country. It will be so if lessons are learned from what has already been done.

Many farmers did not have the slightest idea of the agrotechnology of the new crop. Previously, they introduced it only near Alma-Ata and Taldy-Kurgan. However, during the past season they began to cultivate soybeans in Chimkent, Kzyl-Orda, Semipalatinsk, and Dzhambul oblasts. We had to hold five seminars in the last of them during the presowing period. The discussion concerned the importance of soybeans in the national economy, their economic efficiency, and exceptional value as predecessors. We acquainted future soybean growers with the technology. Furthermore, the institute concluded cooperation agreements with a list of specific obligations of both parties with all farms in Merkenskiy Rayon.

We also prepared a reserve for the future. An experimental plot was allocated for scientists on the Merkenskiy Sugar Beet Seed Growing Sovkhoz, where

observations of plant growth and development and of the flow of nutrients and moisture in the soil were made. On this basis critical periods in grain harvest formation under local conditions were revealed. As a result, on the base farm the yield exceeded 20 quintals per hectare, but throughout the rayon it was 14.2 quintals. And this, one may say, under extreme conditions!

The crop's vast potential was also revealed on the fields of neighboring Kurdayskiy Rayon. With the technology developed by the institute it obtained 15 quintals of grain per hectare on an area of 740 hectares.

On the other hand, 4.6 quintals of grain per hectare, on the average, were gathered in neighboring Chimkent Oblast, where natural conditions are better. The oblast agroprom tries to justify such a gap with "objective reasons." Of course, they also exist. However, the main trouble is that most farms accepted soybeans with ill will and doomed them to "starvation." Soybeans were treated in Kzyl-Orda Oblast in the same manner.

In the Semipalatinsk Irtysh area the conditions are worse and the possibility of soybean cultivation, in general, is open to question here to this day. However, residents of this area, having placed the new crop on their fields for the first time, in its yield exceeded Chimkent and Kzyl-Orda farmers twice. The family link of V. Pershin from the Krasnyy Dozor Kolkhoz in Urdzharskiy Rayon managed to grow 22 quintals of soybeans per hectares on an area of 100 hectares, on the average, and on 45 hectares this indicator was 27.5 quintals.

V. Pershin did not have much experience. On the other hand, he had a big desire to grow the maximum harvest and to justify the confidence of the board and of the party committee. The link leader carefully acquainted himself with recommendations, went to soybean growers on the Kolkhoz imeni Krupskaya in Taldy-Kurgan Oblast for advice several times, and brought seeds of the "Evans" variety from there. Then he persistently followed the recommended agrotechnology. For this year the farm fully provided itself with selected seeds, selling more than 120 tons to the state. Straw also came in handy. Fifty tons of it were silaged together with pumpkins and sunflower caps and the remaining part was processed into granules and other types of feed.

The soybean agrotechnology recommended by us is based on industrial technology. An overall and prompt fulfillment of its elements--selection of high-yielding varieties, determination of the best predecessors, maximum introduction of mechanization, application of optimal mineral fertilizer and herbicide doses and irrigation rates, and seed treatment with nitratin--has made it possible to obtain more than 50 quintals of grain per hectare on one of the experimental plots on the Sovkhoz imeni Tomarovskiy in 1986 and 34.5 quintals, on one of the production plots. On the average, from 22 to 33 quintals of soybeans per hectare were gathered both on that farm and on the Panfilovskiy Sovkhoz, the Kolkhoz imeni 24 Syezda KPSS in Talgarskiy Rayon, the Kaskelen Experimental Production Farm of the Kazakh Scientific Research Institute of Farming, the Aksay Sovkhoz in Kaskelenskiy Rayon, the Kolkhoz imeni Ilich in Enbekshikazakhskiy Rayon, and on other farms in Alma-Ata Oblast. In this oblast the grain yield per hectare increased to 15.3 quintals on an area of 8,000 hectares.

Now, in the course of the restructuring in the agroprom, achievements of advanced workers should become a reality in the practice of all farms. Scientific workers have decided to teach hundreds of farmers the ability to competently grow the crop, which is new for them, in the shortest time. For the first time we have permanent courses for this. About 500 people will annually enrich their knowledge at them. Highly skilled scientific associates at several institutes and sovkhoz and kolkhoz specialists conduct classes.

Last year revealed the lack of preparation of the seed growing base. There was a shortage of standard seeds and fields were sown, as the saying goes, with what God sent. Many varieties proved to be unsuitable for local soil and climatic conditions and seeds were of low sowing qualities. Now there is no longer such disorder. Most farms have in their bins high-grade seeds of the highest-yielding varieties and others bring them in now.

A total of more than 6,000 tons of seeds grown in Kazakhstan have been prepared for sowing. Before spring sowing another 2,000 tons will arrive from abroad. This is the Hudson variety, which has proved its value in the republic's southern rayons. These seeds will be sufficient for placing soybeans for grain and in a mixture with corn on 77,000 hectares. Unfortunately, the quality of seeds leaves much to be desired. One-half of the checked batches does not meet the requirements of first and second categories. Less than one-fourth are third-category seeds and the rest are considered substandard.

Taking into consideration the big need for seeds of the highest reproductions, the Kaskelen Experimental Production Farm of the Kazakh Scientific Research Institute of Farming made a decision to annually produce 395 tons of elite seeds, instead of the planned 86, during the 12th Five-Year Plan. In Taldy-Kurgan Oblast the Aksu Experimental Production Farm will supply seeds of the highest reproductions and in Dzhambul Oblast, the Sovkhoz imeni Roza Luxemburg.

Six varieties of the high-protein crop have been regionalized in the republic. However, most of them have a lengthy vegetative period. Taking this into consideration, breeders began to intensively work on the development of early ripening varieties. One of them is "evrika" developed by the Kazakh Scientific Research Institute of Farming, the Sovkhoz imeni Tomarovskiy, and the Talgar Agricultural Tekhnikum. The State Commission on Testing Agricultural Crop Varieties has regionalized it in Dzhambul, Alma-Ata, and Taldy-Kurgan oblasts. This is an intensive-type variety. Its vegetative period, depending on the cultivation zone, is 82 to 117 days and the maximum grain harvest on strain testing plots has reached 43.4 quintals, the standard harvest totaling 22.6 quintals per hectare.

In the very near future research will have to be conducted on the development of improved methods and technology of the selection process based on modern achievements of genetics, physiology, microbiology, and other fundamental sciences. The role of Chimkent, East Kazakhstan, Taldy-Kurgan, and Ural state agricultural experimental stations will be intensified.

Research results and the first steps for the introduction of the new crop in Kazakhstan have shown that we do not have, or have very few, developments on the biotechnology, physiology, chemistry, biochemistry, and processing technology of soybean grain. The level of overall mechanization of soybean cultivation is insufficient. The republic does not yet have an efficient system of organizational and economic measures contributing to a highly efficient and profitable cultivation of this valuable crop.

The Soya Scientific Production Association should head all this work.

Production Reserves Underutilized

Alma-Ata SELSKOYE KHOZYAYSTVO KAZAKHSTANA in Russian No 7, Jul 86 pp 20-21

[Article by Yu. Karyagin, head of the Department for Growing Pulse Crop Seeds of the Kazakh Scientific Research Institute of Farming, candidate of agricultural sciences: "Important Source of Protein"]

[Text] On the republic's sovkhozes and kolkhozes the production of feed for animal husbandry has increased considerably in recent years. However, there is a marked shortage of protein in rations for all types of livestock. This is especially observed during the winter period. The point is that crops forming the basis for the feed base in themselves are poor in protein. For example, in the green corn mass occupying 2.5 million hectares on the republic's fields one feed unit accounts for only 58 grams of digestible protein, which is one-half of the optimal norm.

Some farms try to compensate for this by increasing rations for animals in terms of weight. Although much feed is expended in this case, nevertheless, livestock productivity remains low.

Advanced practice shows that, for example, when fattening young hogs, 1 quintal of protein feed can save 3.5 quintals of grain, or 1,400 kg of potatoes.

Among pulse crops cultivated in the south and south-east of Kazakhstan soybeans are the most important source of increasing the production of high-quality plant protein. Their merits are well known. On the average, the grain of soybeans cultivated under local conditions contains 40 percent of protein, 20 percent of oil, and up to 30 percent of carbohydrates. Soybeans are truly a robust crop almost fully consisting of useful assimilated fractions.

In its qualitative composition soybean protein is the highest-grade of all protein of plant origin, because it is well balanced in its aminoacid composition. For example, the grain of locally produced soybeans contains three or four times more lysine than barley grain and six to nine times more than corn grain. The grain and green mass of the miracle crop also contain many other irreplaceable aminoacids determining the biological value of protein, which are not synthesized in human and animal bodies and must be supplied with food or feed.

Oil-seed meal, which remains after the extraction of oil from soybean grain, is noted for a high nutritiousness. This concentrated feed contains 40 to 50 percent of protein. Essentially, it is supplied to farms free of charge, because oil extracted from grain not only recovers the expenditures on grain cultivation, but also gives 500 to 700 rubles of net profit per hectare.

Soybeans are a crop, which, when assessed properly, can significantly increase the production of oil in the country both for food and for technical purposes.

Along with high food and feed merits soybeans are of great agrotechnical importance. They provide themselves with nitrogen and enrich soil with it, contributing to an increase of 15 to 20 percent in the yield of other agricultural crops in a crop rotation.

Significant reserves for an increase in soybean production exist in Kazakhstan, where soil and climatic conditions correspond to the biological characteristics of this crop. There is a great deal of heat and light here, especially in the republic's south and south-east. With irrigation soybeans can yield high and stable grain harvests here. Therefore, in our opinion, it is economically advantageous to organize a large base for the commodity production of soybean grain in this region, for which certain prerequisites have already been created. A number of varieties of this crop adapted to local climatic conditions have been developed. Among them two varieties (Kazakhstanskaya 200 and Gibridnaya 670) have been regionalized in five oblasts in the republic. Several more soybean varieties with a shorter vegetative period (105 to 120 days) and a higher genetic potential of productivity have been developed in recent years. Under experimental conditions they give 40 to 46 quintals and in state strain testing, up to 43.4 quintals of grain per hectare.

In the republic extensive scientific experience has been accumulated, on the basis of which basic techniques of soybean agrotechnology have been developed. When these techniques are utilized overall, it is possible to stably obtain 45 to 50 quintals of grain per hectare.

The Alma-Atinskiy Sovkhoz can be rightfully considered the pioneer of soybean cultivation in Kazakhstan. During initial years the harvest of the new crop did not exceed 10 to 12 quintals of grain per hectare on an area of 15 to 20 hectares. Success did not come, because the farm did not have highly productive varieties, a developed agrotechnology, and proper experience. However, during the 11th Five-Year Plan a field of 250 hectares was allocated for soybeans and the yield was doubled and then tripled. Soybean growers at the first department worked especially well. On the average, 37.1 quintals of grain were obtained on an area of 83 hectares there.

Other sovkhozes and kolkhozes in the capital's oblast also learned to obtain high harvests of this crop. The Kaskelen Experimental Farm of the Kazakh Scientific Research Institute of Farming on areas sown with soybeans for seeds annually obtains 22 to 25 quintals of grain from each of the 300 hectares and individual links and brigades, up to 30 and more. Here is an example. The

Alma-Ata Sovkhoz allocates up to 450 hectares of land for soybeans and obtains up to 25 quintals of grain per hectare.

In 1985 the soybean field in the capital's oblast occupied 6,800 hectares. The harvest totaled 13.7 quintals of grain, which was 2.6 quintals more than obtained per hectare of sown areas during the preceding year.

The mastering of advanced experience is the most important reserve, which, when utilized, can significantly increase the production of this profitable crop. Managers and specialists of the Kzyl-Gayrat Kolkhoz should give thought to this. A soybean yield of 1.7 quintals per hectare cannot be considered normal. Only soybean growers on this farm were able to attain, if one may say so, such an indicator. The Kapchagayskiy Sovkhoz obtained only 4 quintals of grain. But the land of these two farms adjoins that of the Alma-Ata Kolkhoz. The neighbors have absolutely the same conditions for soybean cultivation. What is the matter? Evidently, soybean cultivation on the Kapchagayskiy Sovkhoz and on the Kzyl-Gayrat Kolkhoz did not become a matter of paramount importance. A great deal must be paid for this. Owing to the shortage of protein in animals' rations, these farms failed to obtain a substantial quantity of farm output.

In the republic there are examples of rapidly overcoming shortcomings in the organization of soybean cultivation.

In Taldy-Kurgan Oblast 3 years ago the harvest of the grain of this crop totaled only 5 quintals per hectare on an area of 3,220 hectares. Managers accepted active help from scientists at the Kazakh Scientific Research Institute of Farming. Its associates developed and helped to introduce intensive soybean cultivation technology into production. The result had a quick effect. In 1984 the average soybean harvest in the oblast totaled 13 quintals per hectare, but last year 13.4 quintals per hectare were obtained there. We would like to note that in a year the area sown with soybeans in the oblast increased from 4,800 to 5,900 hectares. Individual farms shot ahead significantly. The Kolkhoz imeni 22 Syezda KPSS obtained 24 quintals of grain per hectare in 1984 and 26.9, in 1985. The Kolkhoz imeni Krupskaya, 27.7 and 26 quintals respectively.

It can be stated with good reason that soybeans have taken root in the republic. However, they spread on fields not as widely as they deserve in terms of their economic value. During the 11th Five-Year Plan the sown area under soybeans increased by only 2,900 hectares, totaling 13,100 hectares in 1985. If we take 1984 and 1985, during the second of them the area sown with soybeans was even reduced by 0,370 hectares. Dzhambul and Chimkent oblasts are especially not overfond of soybeans.

Along with an expansion of areas sown with pure soybeans they should be widely applied in a mixed sowing with corn. The advisability of such a method is confirmed by the following calculation: 200,000 to 300,000 hectares of combined crops, with a harvest of 300 quintals of the green mass per hectare, will additionally give 38,000 to 57,000 tons of protein. Thus, the "game is worth the candle." Unfortunately, these kinds of mixed crops have not yet been properly popularized in the republic.

And now about how increased attention to soybeans concretely affects a rise in farm output. On the Alma-Atinskiy Sovkhoz, on the average, milk yields per forage cow increased from 3,676 kg during the 8th Five-Year Plan to 4,400 kg during the 11th Five-Year Plan, the fat content of milk comprising 4.2 percent. Of course, other measures also had a positive effect, but soybeans had the final say. For example, it was established that, when 200 grams of soybeans were added to concentrated feed forming part of the daily ration of a milch cow, the fat content of milk increased by 0.2 percent.

On this farm the production cost of pork was 80 to 85 rubles per quintal. This is not a bad indicator. It was also attained by feeding soybeans and other protein feed to animals. One feed unit in their rations accounts for 110 to 120 grams of digestible protein. With such feeding only 5.5 feed units per kg of weight gain are expended. On this farm the feeding of hoglings with an addition of soybeans ensures an increase in the weight of one hogling during the period of its weaning from a sow from 13 to 19 kg and among advanced hog tenders, to 23 kg.

Soybean milk has long been used in calf feeding. Daily weight gains in 3-month old young stock, when, on the average, 4 liters of soybean milk per calf were fed in 24 hours, reached 939 grams, whereas, when 8 liters of skim milk were fed, weight gains did not exceed 803 grams.

At the Kaskelen Experimental Model Farm of the Kazakh Scientific Research Institute of Farming, when soybean grain was added to concentrated feed at the rate of 10 to 15 percent of its weight during the stabling period, the fat content of milk increased by 0.2 to 0.3 percent and milk yields per fodder cow rose by an average of 353 kg.

Realizing the advantage, the farm annually expanded the area sown with soybeans. From 1981 through 1985 it increased from 60 to 300 hectares.

Corn-soybean silage also showed a high efficiency on the sovkhoz. The same weight quantity of pure corn and corn-soybean silage, when fed to milch cows, gives a different quantity of output. A total of 17 percent more milk is obtained in the second case than in the first. That is why corn for silage is sown here only together with soybeans.

Farm specialists, studying the efficiency of the pulse component in corn-soybean silage, conducted an experiment. Two groups of animals received the same quantity of protein, but from different sources. In one case the protein level was balanced by a soybean additive and in the other, by lucerne hay. The average daily milk yields in cows of the first group were 6.7 percent higher than in animals of the second group. A total of 0.89 feed units per kg of milk were expended in the first case and 0.95, in the second.

On the Druzhba Sovkhoz in Kaskelenskiy Rayon the proportion of soybeans in silage comprised 30 percent. This made it possible to increase milk yields by 20 percent and the fat content of milk, from 3.8 to 4 percent. On that farm silage was stored from the production sowing of corn with soybeans.

Here is another variant.

Three different types of silage, that is, corn and lucerne--7 to 3--corn and soybeans--also 7 to 3--and pure corn silage, were prepared on the Kolkhoz imeni Michurin in Talgarskiy Rayon in Alma-Ata Oblast. Expenditures on milk production proved to be the lowest when corn-soybean silage was used. In that case 0.78 feed units per kg of output were expended. When cows were fed silage made of corn with lucerne, 0.90 feed units per kg of milk were expended and corn silage, 0.94. Feeding corn-soybean silage to cows not only saved feed, but also had a positive effect on the chemical composition of milk. It contained 4.25 percent of fat and 3.5 percent of protein, whereas the milk of cows receiving silage made of corn and lucerne had 3.95 percent of fat and 3.26 percent of protein and, when pure corn silage was fed, 3.9 and 3.23 percent. Similar results were also obtained at the State North Kazakhstan Experimental Station, where, when cows were fed silage made of corn with soybeans, daily milk yields increased by 14.1 percent, the fat content in milk, by 1.08 percent, and feed expenditures per kg of milk decreased by an average of 0.6 feed units.

Soybeans can and should be cultivated in all the republic's zones, but this requires a certain minimum of varieties adapted to different soil and climatic conditions. To move soybeans to the republic's eastern and even northern regions, where basic arable land is concentrated, early ripening varieties are needed. However, only the Kazakh Scientific Research Institute of Farming engages in the selection and agrotechnology of soybeans in Kazakhstan with small forces and in a negligible volume. In connection with this it is necessary to intensify research on soybeans at the indicated institute and to organize laboratories and groups for the selection and agrotechnology of soybeans at state experimental stations.

In order to successfully introduce soybeans in the republic, it is necessary to find an area of no less than 300,000 hectares, on which they will be sown in pure form. Part of the sowing of this crop can be concentrated on newly developed irrigated land in Alma-Ata Oblast (BAK) and, when soil is desalinated, in Chimkent Oblast (Kzyl-Kum tract of land). Soybeans should be placed on old-arable land as a result of a revision of the structure of sown areas without a reduction in the gross production of other agricultural crops, as has already been done on the republic's advanced farms.

As the production of soybeans is increased and soybeans are introduced into rations of farm animals, the need for feed will be lowered by a factor of 1.5 to 2, which will make it possible to reduce sown areas under other fodder crops and to place soybeans on some of them.

There are many difficulties in the work of soybean growers. Overall mechanization of the cultivation, harvesting, and processing of soybean seeds depending on the biological characteristics of soybeans is not at the proper level now, because the output of special machines has not been organized in the country and general-purpose machines do not fully meet the necessary requirements. Soybean sowing farms are not provided with the necessary assortment of herbicides, in particular with bazargan, which is applied after soybean and weed sprouts. Basic soybean cultivation zones do not have oil

extracting plants, which greatly lowers the economic efficiency of soybean cultivation. Now there is a need for an efficient organization of soybean production and the application of intensive technology of soybean cultivation on the basis of the achievements of science and practice, which will contribute to an intensification in the production of this crop and to the realization of the assignments of the Food Program.

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Planting Problems

Alma-Ata SELSKOYE KHOZYAYSTVO KAZAKHSTANA in Russian No 2, Feb 87 p 26

[Article by O. Nikanov: "Lessons of the Soybean Field"]

[Text] Taldy-Kurgan-Alma-Ata oblasts--Last spring I dropped in at the Oktyabrskiy Sovkhoz in Alma-Ata Oblast. In 1985 three contract links, which worked there on soybean plantations, gathered not a bad harvest. The 250 hectares allocated for this valuable crop yielded a sizable profit--about 100,000 rubles. How do matters stand now?

"Not bad," said sovkhoz director Aleksandr Yakovlevich Vasman. "We have expanded the areas sown with soybeans, bringing them up to 400 hectares. On the average, we obtained almost 20 quintals."

Now, perhaps, no one should be convinced that it is profitable to grow soybeans. First, because for 1 ton of grain delivered to the state it is possible to obtain 10 tons of mixed feed. Second, the very utilization of soybeans in the ration of animals helps to solve the problem of protein shortage. After all, soybean protein in its qualitative composition is the highest-grade of all protein of plant origin.

What can soybeans give? As the experience of Alma-Atinskiy and Druzhba sovkhozes and of the Alma-Ata Kolkhoz shows, the use of corn-soybean silage in cow feeding makes it possible to raise milk yields from 6.7 to 20 percent. At the same time, the content of fat in milk increases by 0.2 percent. On the average, milk yields rise by 350 kg per fodder cow. Some farms, for example, the same Oktyabrskiy Sovkhoz, use soybean milk in the feeding of calves and in the creep feeding of hoglings. This significantly increases weight gains and gives a big economic effect.

Soybeans are not a capricious crop. However, they raise many problems. Sometimes the first failures lead to the fact that managers begin to be cautious, allocating small areas for sowing them, and sometimes completely exclude soybeans from crop rotation. Where people are not afraid of difficulties, good results are obtained. For example, the first soybean harvest obtained in Taldy-Kurgan Oblast was disappointing: only 5 quintals per hectare. However, people did not lose heart, but turned to scientists at the Kazakh Scientific Research Institute of Farming for help. This was in 1983. Intensive soybean cultivation technology was developed and introduced there during past years. In 1984 the average yield reached 13 quintals per

hectare and on advanced farms it was 26 to 28 quintals. Record breakers also appeared. The link of Erik Vikhman from the Kolkhoz imeni Krupskaya gathered the highest harvest.

At the conference of soybean growers Vikhman's speeches were awaited with special impatience. When he appeared on the stage, complete silence set in and only notebooks rustled.

Vikhman spoke about his work. He discussed in detail all technology, beginning from soil preparation and ending with harvesting. I saw neighbors patiently noting in their notebooks how and when to treat crops with herbicides, to carry out cultivation, and to determine the irrigation time. When Vikhman said that under no circumstances should irrigation be done with a sprinkler, everyone nodded in harmony: They tried, but it was impossible, because soybeans bloom for a long time and water knocks the pollen down.

But then he finished and the room became animated. Everyone wanted to speak up at once--to agree with something and to dispute something. Someone said with disappointment that during the year he had already studied and strictly followed the technology developed by Vikhman jointly with scientists at the Kazakh Scientific Research Institute of Farming, but he obtained nothing.

This was heard more than once. And not only from soybean growers: This will not work for us--our climate is not the same and land is also different. In reality, however, it was a matter of something else: Where harvests were poor, the standard of farming was low. No knowledge can compensate for the absence of this crop. It is inherent in the special feeling of the land, its capabilities, and its nature. In his speech Yu. G. Karyagin, head of the Department of Pulse Crops at the Kazakh Institute of Farming, discussed precisely this. Many farms use so-called scarce varieties. It happens that they obtain quite good harvests during the first and second years. Then there is a standstill. However, remembering past successes, some continue to hold on to this variety. Why to sacrifice stability for the sake of a momentary advantage? They will say: In order to see the result and yield right away, on the spot. An adventure, which no one needs and which is absolutely not profitable for the farm, or for the state.

Regionalized varieties are needed, Karyagin said, because others can give only an economic spurt. Yuriy Grigoryevich has dealt with the problem of soybean cultivation in the republic for more than two decades. The pain with which he talked about the repetition of mistakes--mistakes, whose cause lies not in the ignorance of agrotechnology, but in people's psychology--is understandable.

One often has to turn to the experience and opinion of associates at the Kazakh Institute of Farming, because the success of farmers in Taldy-Kurgan and Alma-Ata oblasts is largely due to their credit. Exercising scientific control over the work of soybean growers on the Alma-Atinskiy Sovkhoz, they have come to the conclusion that every field needs its dosage of herbicides.

In essence, all this concerns one thing. The main lesson learned by the participants in the conference is that the experience of the best is

significant and interesting, but it should be applied on the basis of the characteristics of one's own field.

Now about problems. Of course, the first is the lack of equipment for soybean cultivation. For the time being, it is produced by handicraft workers. A distinctive exhibition was held during the conference. Two rows of seeders, cultivators, and harvesting combines were set up directly on the area. They were brought there especially from the oblast's farms in order that those wishing could themselves examine and touch everything with their own hands. There were many who wished to do this. During breaks groups of participants--very likely, everyone to a man--visited the exhibition. They asked questions and made notes in notebooks. This will come in handy.

The shortage of herbicides is the second problem. In general, it is easy to solve it, but it still exists. Regionalized varieties and the need for a closer link between science and every soybean field is the third.

This year many farms in Alma-Ata and Taldy-Kurgan oblasts have adopted increased obligations for obtaining high soybean harvests. However, it will be difficult to fulfill them if all problems are not solved.

This is the opinion of Yu. G. Karyagin, head of the Department for Selection and Agrotechnology of Pulse Crops at the Kazakh Scientific Research Institute of Farming:

"To accelerate the introduction of soybeans, a planned nature should be lent to their production. Part of the crops can be concentrated on newly developed irrigated land, for example, in the region of the Big Alma-Ata Canal. Soybeans can be placed on old arable tracts of land as a result of a revision of the structure of sown areas and a limitation of the sowing of grain cereal crops, sugar beets, and low-productivity annual fodder crops. It is possible to organize an expansion of soybean sowing even without reducing the gross production of other agricultural crops, as has been done by advanced farms in Alma-Ata and Taldy-Kurgan oblasts."

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STATE ACCEPTANCE OF CONSTRUCTION

Value of State Acceptance in Construction

Moscow IZVESTIYA in Russian 24 Feb 87 p 2

[Article by M. Krushinskiy: "Is State Acceptance Needed in Construction Even Though Complete Cost Accounting [khozraschet] Has Still Not Become a Reality?" first paragraph is source introduction]

[Text] Initially, allow me to mention a misunderstanding. It involved a number of individuals involved in construction work as well as non-specialists: let us assume that the state acceptance committee, through whose hands any product passes for "finishing" work, is carrying out the function of state acceptance. It is as though there is nothing to interpret -- the question set forth in the headline makes no sense.

Alas, we have before us a typical example of terminology confusion. The similarity between the mentioned services is restricted by the absence in their title of the word "state." And the difference is a basic one: state acceptance in production is carried out by representatives of the arbitration department of Gosstandart [State Committee for Standards of USSR Council of Ministers], who are not held materially responsible for defective products and thus are not interested in reducing it; in production, the acceptance committees consist mainly of people who are dependent upon favorable indicators and, as a result, are inclined to view the imperfections through their fingers.

But place yourself in the position of deputy chairman of a rayon executive committee or a municipal executive committee. On our territory, a kindergarten, school or a new apartment complex is being erected: who is to be held accountable if the planned schedules are not followed? And will it be you or the chairman of the acceptance committee who will "grieve" on 31 December over the quality of the installation or the planned schedule? And indeed, almost all members of the committee find themselves in a similar situation. Are Gospozhnadzor [State Fire Inspection] and Gossaninspeksiya [State Sanitary Inspection] really "independent," despite the fact that their point of view is specific in nature? Yes, there is still the representative of Stroybank. However, his concern is the conformity of the volume of work

carried out to the amount of resources expended and by no means the quality as such. A similar situation prevails in industrial construction.

In the article entitled "Self-Control or Self-Deception?" (published in Issue No. 6 of IZVESTIYA for 1987), the situation was revealed in sufficient detail. As revealed in the initial responses received from readers, it is arousing concern among many individuals. "The contractors and the clients have but one task -- to place an installation in operation within the established period" stated N. Derevyanko, an engineer-builder in Donetsk, in a letter sent in to the editorial board, "The client is as interested as the contractor in seeing an installation turned over for operation, especially at the end of the year. Both stand to profit when the construction is completed in a rapid manner."

But the differences between an acceptance committee and state acceptance do not end here. A plant controller must monitor the production of goods throughout the entire technological cycle and they must prompt the plant workers as to where and how they are to participate in preventing the production of defective products. But what about construction? Let us use as an example an apartment complex. Thus the members of a committee tour the various floors and carry out inspections and checks: does the roof leak, do the doors and windows close and are the faucets in good working order? And what happens if after a week's time the roof begins to leak or the doors and windows no longer close? Even an extremely conscientious and skilled specialist is unable to detect such concealed construction defects in just a day or two. Hence, there is a new question: who controls quality in construction during the course of construction?

Analysis reveals that this branch does not have a service similar to state acceptance in production. A majority of the construction projects do not even have a service similar to a plant OTK [Department of Technical Control].

"According to the statute, the controlling individuals in mining construction are the mine surveyors. But I cannot recall even one occasion during which an inspection carried out following mine surveying acceptance of mining work failed to reveal crude deviations from the instructions. The curator service of a client must exercise control over "surface" construction, the planners must implement author's supervision and Stroybank carries out controlled measurements. But not one of the mentioned organizations is capable of carrying out complete checks."

The author of a letter, Comrade Miroshnichenko in Ust-Kamenogorsk, who has 40 years of work experience in the branch, served as manager of a construction trust up until recently. He knows well the subjects that he discusses. Over a period of many decades, concern for quality in construction was entrusted to the builders themselves, who for their part did not care for the creation of a reliable control service. From one five-year plan to the next, they placed emphasis upon volume and the observance of schedules, that is, quantity. The problems concerned with quality have accumulated and have not reached a "critical stage."

In a recent review of readers's mail (IZVESTIYA Issue No. 45 for this year), the complaints of new residents of Voronezh, Samarkand and Chernovtsy were

cited: scandalous examples of defective construction work in the erection of apartment complexes. Fortunately, such incidents are being encountered only rarely. Over an extended period of time, we have become accustomed to ignoring various "trivial" imperfections. They can be found in almost any construction project being placed in operation. If you do not believe this, then check for yourself. For example, if you have a parquet floor in your home, try pushing the tip of a common match in the crack separating the parquet squares. You can lay a bet on the fact that it will wiggle through and still you will not lose it. But even this is a violation: according to the norm, the clearance must not exceed 3 millimeters.

This is obviously a minor concern and clearly a house should not be held up for delivery because of this type of defect. Unfortunately however, the situation as a rule is becoming far worse. According to data supplied by Stroybank, the additional expenses required for the finishing off of new apartments amount to an average of 4-6 rubles per square meter of living space. This amount is paid for mainly by the new tenants themselves. Nor is the situation any better in the case of capital construction. A random check carried out recently by the USSR CSA revealed the following: 21 percent of the loss sustained by the state as a result of incomplete mastering of new production capabilities was caused by low quality construction-installation work. We criticize the production workers and one fifth of their number (even more) are guilty -- so also are the builders, since everything is mutually interrelated.

But for goodness sake! -- they will say. We have Gosstroyinspeksiya and there are also the organs of Gosarkhstroykontrol (GASK) [State Architectural Construction and Control]. They must be looking somewhere, are they not? I reply with a question: can they accomplish very much with 139 inspectors? Such is the numerical strength of this all-union service today. Last year the resources of Gosstroyinspeksiya were employed for inspecting roughly 1,000 of the 320,000 industrial installations under construction -- the readers can themselves estimate the percentage involved here. And for this we thank them! These people spend 140 days each year carrying out temporary duty assignments.

Civil construction is controlled by the GASK services. Here there are more workers -- approximately 3,000. True, their number is declining with each passing year -- some wish to work at less prestigious positions involving more humble wages. But even with a so-called complete staff complement, is it conceivable for such forces to be able to control the innumerable working operations that must be carried out at the many construction projects? Distinct from the inspectors who are subordinate directly to USSR Gosstroy and to the union republic gosstroy's, the GASK workers are paid by the ispolkom's [executive committees] which, as already stated, are truly interested not so much in quality but rather in the volume of construction-installation work. Thus the value to be realized from such control is only relative.

"The single most reliable evaluator of quality is the consumer, who only punishes himself if a defective product is accepted. But today the situation is such that a consumer punishes himself when a complaint is registered against a bungling worker" wrote Yu. Shchipakin from Perm, "Construction arbitration must be organized so as to ensure that responsibility for losses

caused by low quality rests entirely with the bungling workers." Similar thoughts were expressed by a labor veteran in Kiev, B. Kessler: "Formerly, there were guarantee certificates which required the contracting organizations, using their own resources, to correct the imperfections uncovered during the year from the first day of settlement. Actually, these certificates have assumed a dead form. They should be enlivened. Roughly one year after the project has been turned over for operation, a committee consisting of representatives of the contractor, the client and the consumer (board of directors of the enterprise or the zhek [housing operation office]) should carry out a check to ensure that the guarantee certificate conforms to the work carried out. Only after this has been done, can the builders be paid a bonus!

The law concerning a state enterprise (association), the draft for which is presently under discussion, must put everything "in its proper place." In the case of "thorough" cost accounting operations, the function of acceptance may be entrusted to the zhek or dez: it will accept no defective products that could cause a loss to itself and no ispolkom will force it to do so. And a cost accounting contractor will carefully avoid defective products -- fine sanctions will cease to be a formality and will painfully affect the pockets of each individual, from a plasterer to the manager of a trust. But this will be in the future, when the economic levers for administration will predominate in our economy finally and completely. The question remains: must we continue to tolerate defects during this current stage?

I am not convinced that we should mechanically turn over the as yet not too rich experience in the state acceptance of products to the construction sites from plant shops. But skilful, consistent and impartial control by a service representing the state's interests and one dependent only upon these interests is needed. Another factor is also quite clear -- who will display concern for the creation of such a service. Technical policy within the branch is dictated by a union-republic state construction committee -- USSR Gosstroy. It is the collective "author" of effective SNiP's [construction norms and regulations] and other norms. Its functions are very similar to the functions of Gosstandart in industrial production: to be a higher judge, a "tuning fork" and the economic and technical "conscience" in its sphere. It must monitor the strict fulfillment of the technical principles developed by it.

After the article had been prepared for the press, it became known: a planned inspection carried out by Gosgrazhdanstroy in the city of Krasnoyarsk had uncovered crude violations in the system for turning over apartment complexes for operations. In accordance with the results for 1986, 65,796,000 square meters of housing space were withdrawn from state accountability.

Here we have in mind nine buildings: according to the records, they should have been turned over for operation prior to the beginning of the new year. Actually however, in seven instances the acceptance documents were not signed until the end of January. Moreover, two of the buildings were turned over with serious imperfections: electric power had not been connected up, there was no electric plate in the kitchen, entrances and approaches to the homes were lacking and plastering, carpentry and other types of finishing work had still not been completed.

The contractors were local construction organizations and the clients -- the Krasnoyarsk Combine for Industrial Construction Materials of USSR Minuralsibstroy, the Ministry of Industrial Means of Communication and the UKS [Administration of Capital Construction] of the Krasnoyarsk Municipal Executive Committee. The signatures of the deputy chairmen of the rayon executive committees who headed up the acceptance committees -- were on both of the "fake" acceptance documents.

It must be assumed that competent organs will furnish a legal evaluation of these facts. But how can the events which have taken place be evaluated from an economic standpoint? By no means wishing to justify those who were at fault, it nevertheless must be stated that their violations were prompted by an absence of true interest in quality and also by the existing system of lack of control. The executive committee, which should have been looking after the needs of the city-dwellers, was concerned only with the indicator for gross production. Would this not explain the imperfections and defects?

Inspections carried out by Gosgrazhdanstroy were capable of covering only 2 percent of the housing and socio-cultural installations under construction. Thus the specific violations uncovered and the phenomenon which is causing serious economic and moral damage to society are continuing.

Task of State Acceptance Committee

Moscow IZVESTIYA in Russian 9 Mar 87 p 2

[Article by M. Krushinskiy and A. Shcherbakov, special IZVESTIYA correspondents: "Why the Signature?"]

[Text] Krasnoyarsk--In the article entitled "Is State Acceptance Needed in Construction" (IZVESTIYA Issue No. 55 for this year), the facts concerning a crude violation of the system for turning over apartment complexes for operations in Krasnoyarsk were discussed. Let us turn to this subject once again and not for the sake of details. A simple need exists for restoring fairness. The article created the impression that prior to the arrival of the inspectors from the capital there was not one individual concerned with singling out the bungling workers. But this was not so; such individuals were in fact found. They spoke out in behalf of the interests of the new settlers and the state's interests and despite the organizational weakness of their position, they won their case. It is difficult to say how the situation might have turned out if timely assistance had not been received from USSR Gosgrazhdanstroy.

These people were workers assigned to the Krasnoyarsk municipal inspectorate for GASK [state architectural construction control]. Five women and two men who were actually subordinate to the deputy chairman of the municipal executive committee.

Here we have before us a document of the state committee concerning the acceptance in Krasnoyarsk of a nine-story apartment building on Slovtsova Street. On the title list, on sees the official stamp and visa mark of the

deputy chairman of the municipal executive committee A. Manasyan. At the end, as required -- a list of the members of the committee. Including the chairman, there are ten of them. But there were only nine signatures. A blank space appeared opposite the name of GASK representative L. Opokinaya.

This building was one of nine subsequently removed from state statistical accounting based upon the results for 1986. They were removed only recently by USSR Gosgrazhdanstroy, during the second half of February. Fairness triumphed and yet even earlier, during the last days of December last year, the municipal inspectorate of GASK fought for it. A signature by its representative did not appear on one of the documents which approved the construction defects.

Allow us to explain: each inspector is assigned a definite group of installations in the city, he visits them regularly during construction and he monitors the situation to ensure that all of the work rules are followed. And when the time arrives, he participates in the acceptance procedure on the staff of the acceptance committee. At this time, he understandably possesses a rather clear notion as to the degree of readiness of the building and his opinion is listened to. But at the end of last year, the situation with regard to the turning over of installations was especially complicated. A strong desire was observed to "consign" them to operations even in those instances where defects were readily apparent. We wish to state boldly that the committee members were subjected to pressure -- otherwise it would simply be impossible to explain their unanimous "yes" votes. Only the GASK representatives proved to be obstinate. Neither persuasion nor appeals bordering on commands did the trick. At this point the municipal executive committee decided to overrule the GASK: using its authority, it approved the "disputed" acceptance documents and turned the building over for occupancy.

With GASK inspector L. Opokina, we visited this same nine-story building and toured the apartments. We were convinced: even after two months had elapsed, some flaws and problems still remained. Moreover, new ones had surfaced -- the sewer pipes had sprung a leak: the tenants had placed small basins, pails and other containers under them. Meanwhile, the builders were feverishly working throughout this entire period in the hope of finishing work on this building that had been returned to them by March. One could only imagine what occurred here on new year's eve.

Moreover, why imagine? Here is a document -- an official record by the chief of the GASK Inspectorate dated 7 January. Aleksandr Yuryevich Kharkevich explains in detail why the inspectorate considers the installation to be unprepared and thus is unable to sign the document of the state committee. But indeed, nine individuals signed it! Included among them were representatives from the client-plant, the chief of the municipal telephone network A. Stetsenko and a senior inspector from a fire-fighting unit M. Merkulov, despite the fact that there were obvious flaws associated with their departments.

And who headed the committee? I. Ponomarev, chairman of the Oktyabrskiy Rayon Executive Committee in the city of Krasnoyarsk. Today he believes that his signature on the document is not in conflict either with the laws or with his

conscience. He is a very busy individual -- he can fuss over a flight of stairs or ask questions concerning the fine points of construction work. We asked him why he personally was working. Indeed, the GASK had refrained from adding its signature and had presented an entire list of flaws. Ivan Akimovich answered us in the following manner:

"Nobody on the state committee has been given the right of "veto."

Here he was unfortunately correct. The construction code -- a handbook of SNiP's [construction norms and regulations] -- contained the following statement in this regard: "In those instances where some members of the committee raise objections, they must be examined with the participation of the organs represented by these particular members, until finally the acceptance document is approved." And that is it! It is not clear what would happen if, following examination, the sides remained unchanged. Is a document which lacks a signature by the GASK inspectorate, or SES or the fire protection service truly legal? Perhaps Gosstroy should introduce a refinement which would provide some members of the state committee with the right of "veto."

The task of the state acceptance committee -- to prevent violations -- is at times fraught with tragedy.

"As workers attached to the Idrinskiy Rayon fire-fighting unit, we turn to you with a complaint regarding incorrect action on the part of the leaders of the executive committee of the rayon soviet of people's deputies and the Idrinskiy CPSU Rayon Committee, who were responsible for the placing in operation of a club for 400 members in the village of Idrinskoye which has incomplete fire-fighting measures."

The episode which we are referring to at the present time is directly associated with the theme of our discussion, despite the fact that it took place in late November and in December in a rayon center in Krasnoyarsk Kray -- in the village of Idrinskoye. The above excerpt was taken from a collective letter which workers attached to professional fire-fighting unit No. 62 addressed to the 1st secretary of the Krasnoyarsk Kray CPSU Committee P. Fedirko and to the chairman of the kray executive committee V. Plisov. The subject concerns a protest against a blank appearing on an acceptance document for an installation (in this instance, a club) -- opposite the name of the representative of Gospozhnadzor [State Fire Inspection].

We will not burden the leader with a list of what should have been done by the builders in keeping with the plan for fire safety. We have all read on many occasions of the tragedies which occurred in foreign movie theatres and night clubs: a fire would break out -- dozens of victims and the cause -- basic greed on the part of the owner, who had not provided sufficient emergency exits or fire extinguishers.

Fortunately, nothing like the above happened in the hall for 400 people in the village of Idrinskoye -- thanks to the firm attitude adopted by the local firemen and their chief Mikhail Konstantinovich Katyrev. Their complaint resulted in action being taken. Through the efforts of the leader of the kray

(and not the municipal this time) inspectorate of GASK Feodosiya Konstantinovich Zagrabchuka, the club was excluded from the list of installations turned over for operations. But a very important question arises: how could this be? It is clear that it could happen in the capitalist world, but in our case does not such a demon encourage a violation of the rules for safety? How much profit was being sought by the deputy chairman of the Idrinskiy Rayon Executive Committee G. Savanchuk, who headed the committee and who accepted the club with scandalous violations of the norms? Were leading roles played by the chairman of the executive committee A. Korolev and the 1st secretary of the rayon party committee I. Torzhevskiy? How much did they really have to endure in order to be able to please their countrymen with a new center of culture?

Similar questions can be posed with respect to Krasnoyarsk homes. Was it merely a concerned desire to accelerate the joy of the new tenants that forced the members of the state committees and the gorispolkom [municipal executive committee] to accept homes that were not completed? The following figures will aid in shedding some light on this question. According to the state plan for 1986, 1,542,000 square meters of housing space should have been placed in operation in Krasnoyarsk Kray. The actual figure was 1,472,000 square meters. Thus the plan was not fulfilled -- it fell short by 70,000 square meters. But this was following the withdrawal from accounting (as early as February) of nine Krasnoyarsk homes, the overall area of which was 65,800 square meters. One can imagine how the "yes" and "no" votes fluctuated on delicate scales up until the recent period (and even following its expiration) on the scale for a huge kray.

In a speech delivered on 12 January before a meeting of the kray party aktiv, the chairman of the Krasnoyarsk Kray Executive Committee V. Plisov stated (we quote from the newspaper KRASNOYARSKIY RABOCHIY):

"In a report by the USSR People's Control Committee, more than a page was devoted to our kray. For example, it was pointed out that in the city of Krasnoyarsk five apartment buildings and two boarding houses representing an overall living area of approximately 30,000 square meters were excluded from statistical reporting during the period from January to September 1986 owing to imperfections and large defects. Nor are such facts limited only to Krasnoyarsk. But we still have not learned who should be punished for this. Why? Because certain party committees and executive committees are issuing direct instructions calling for the acceptance of unfinished installations.

One month later, a small scandal developed. But let us glance once again at the last sentence of the chairman of the kray executive committee. On the one hand, there was sincere recognition of the alarming situation which had developed in the kray. On the other hand, the question still remained: why was it still not known who should be punished? Mention the names of the representatives of the "certain party committees and executive committees." Indeed, these names are known!

"The generally accepted practice is as follows: the members of the state committee sign their names, allowing several days for the builders to complete their finishing work," we were told by the deputy chairman of the Krasnoyarsk Municipal Executive Committee A. Manasyan.

These are sinister words when you think about it. Indeed, it follows from them that in accordance with the "generally accepted practice" the document of a state committee is a fiction or an empty formality! Is it really not possible for the members to assemble once again, when the installation has been improved to the proper condition, and reinforce by means of their signatures the true and not the expected readiness? We are aware that this is a naive question. What meetings can take place there if the reporting period expires tomorrow? The interests of living people make a sacrifice of the indicator. And all of this is so that one individual can report to another: "It is fulfilled!"

Our very life style today is in opposition to this vicious and dangerous practice. Unfortunately however, it is vital. It still by no means has lost its capability to resist. It has advocates who are always prepared to pretend to defend our interests. "I have hundreds of people standing in line at a housing development and you talk to me about whitewashing and about asphalt paths!" And it turns out that moral truth is on their side and their opponents only stand in their way, inhibiting creative work. Their bright goal is that of solving the housing problem.

At times, the doubts are removed and perhaps we are wrong in stressing the faults. At night, we do not sleep but we think: no, everything is right!

A. Kharkevich and his "crew" are not used to yielding ground. And the fact that this time the battlefield remained behind them is also a sign of the times. Nevertheless the thought springs to mind: has the system for controlling quality throughout the branch been perfected? Is it not too heavy a burden to be borne by these five women and two men? As a minimum, they should be granted organizational independence and made subordinate directly to the GASK Administration of USSR Gosgrazhdanstroy. The rates for housing construction are increasing - in Krasnoyarsk, in the kray and throughout the entire country. And the people must celebrate each house warming as a true holiday and not as the beginning of a trying experience.

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LIGHT INDUSTRY DEPUTY MINISTER ON SECTOR CHANGES

Moscow TEKSTILNAYA PROMYSHLENNOST in Russian No 1, Jan 87 pp 3-6

[Article by A.T. Lavrentyeva, deputy minister of light industry:
"Restructuring in Light Industry"]

[Text] One of the most important questions on which implementation of the strategic task of improving the Soviet people's well-being, set by the 27th CPSU Congress, depends is providing the people with high-quality goods from light industry.

Successful accomplishment of this task is impossible without a radical restructuring of the operation of the sector at all levels--from enterprise to ministries.

Even in the present 5-year plan results will have to be achieved which considerably exceed those attained in the past 5-year plan.

In his speech at a meeting with the party aktiv of Krasnodar Kray, General Secretary of the CPSU Central Committee M.S. Gorbachev stressed that we cannot live and work, think and act in the old way. Without restructuring, we shall not solve the tasks which the 27th Party Congress set forth.

Recently, all measures adopted in the sector have been subordinated to the solution of a task of paramount importance--saturation of the market with high-quality, stylish goods in strict conformity with the needs of the different categories of the population.

During the 12th Five-Year Plan, production growth rates of the most important types of products will exceed 2.0-2.5-fold in physical terms those attained in the past 5-year plan. For the USSR Ministry of Light Industry as a whole, it is envisaged that profit will be increased by more than 60 percent.

Our sector has so far not known such growth rates. At the same time, it is necessary not just to increase but to ensure accelerated production of high-quality products and the fastest possible elimination of the shortage of necessities and goods of mass demand as well as the quickest possible replacement of the product assortment in accordance with changing demand. The total production volume of fabrics and nonwoven materials, outer and under

knitwear, socks and stockings and goods for cultural and everyday use will grow significantly over the 5-year period. Production of textile and leather goods and accessories will be further developed.

The cotton sector of industry plans to increase at an accelerating rate the production of fabrics of the calico, garment, clothing, towel and pile groups. It plans to sharply increase the production of mixed-blend fabrics and in 1990 to bring their production up to 1 billion square meters (in place of 170 million square meters in 1985).

Production will be increased of fabrics with special kinds of finishes, improving their appearance and consumer properties.

In the wool sector, it is planned to speed up the production of worsted fabrics with employment of yarn, thread and fibers of low linear density, to expand the use of multicolored blended yarn, to develop an assortment of fabrics containing mohair yarn, which makes it possible to impart stylish effects to them. It is planned to increase 3.4-fold the production of woolen fabrics of improved finish and structure in 1990.

In the silk sector, it is envisaged to increase the output of lining, raincoat, blouse and dress fabrics of reduced linear density. This will be achieved as the result of using synthetic fibers of low linear densities and progressive technological processes. The production output of new-structure silk fabrics will grow twofold.

In the flax sector, it is envisaged to create and put into production packing fabrics made of polyolefin film fibers and new spun items made of polypropylene film fibers.

In the knitwear sector, it is planned to expand the production of linens with new types of weaves and finishes containing progressive types of raw materials, reduced materials intensiveness of combined preparations. The production of knitwear products from cotton and mixed-blend yarn will develop at an accelerating rate.

A broad large-scale program of retooling, modernization and expansion of existing enterprises has been worked out. About 70 percent of the capital investment was designated to be used on its realization. The accomplishment of this program will make it possible to organically combine measures for modernization of production with the creation of additional capacities for providing planned production volume during the 12th Five-Year Plan and the fastest possible output growth of products in high demand.

We cannot approach from former positions the solution of today's tasks with restricted capital investment, still inadequate provision of sectors with high-capacity technological equipment and a shortage of manpower resources. A search for new approaches is necessary. Thus instead of construction of large expensive facilities for light industry, the way was adopted of designing and constructing small and medium-size relatively inexpensive enterprises made of light-weight and prefabricated components, including prefabricated metal modules. These facilities can be built in short time periods.

It is necessary to make wider use of construction with one's own efforts. During this 5-year plan compared to the last, the volume of work completed with one's own efforts is planned to be increased twofold.

A most important direction in growth of production capacities continues to be the construction of affiliates as well as small and medium-size enterprises mostly in the regions of Central Asia, Transcaucasus and North Caucasus, that is, in places where free manpower resources are available.

In light industry under the conditions of the existing demographic situation and an acute shortage of worker cadres, the development of modern high-efficiency equipment as well as increased effectiveness of its use and improvement of technological processes are of special importance.

The USSR Ministry of Light Industry has defined the most important scientific and technical problems whose solution is aimed at further raising the level of scientific and technical progress in the sector.

Principal attention will be devoted to the creation and introduction of essentially new low-waste automated production processes and the development on their basis of automated sectors and enterprises.

In spinning production, one of the main directions is creation of high-efficiency shorter methods of producing twisted, shaped and combined fibers for a promising assortment of fabrics; the development of a shortened method of producing mixed yarn from braided synthetic fibers using stapling machines.

Special attention will be paid to the development of a basically new automatic one-transition [odnoperekhodnaya] spinning system. Its introduction will make it possible to carry out the production process of continuous formation of yarn, to secure a significant growth of labor productivity and to increase production output from one square meter of production area.

The creation is also envisaged of automatic flow lines using robot and microprocessor equipment for producing yarn from cotton, wool, flax and their blends and from synthetic fibers on the basis of jet spinning machines and flow lines in preparatory production.

In weaving production, it is planned to develop comprehensive mechanized and automated production operations on the basis of shuttleless looms and automated complexes of preparatory equipment guaranteeing a two-threefold increase in labor productivity.

It is planned for the first time in domestic practice to create and put into operation microprocessor automated systems for controlling the production process on weaving looms and an automated system of grading unfinished gray fabrics.

In knitwear production, it is proposed to develop comprehensively mechanized and automated production operations for making knitted outerwear products with regular and semiregular methods on the basis of automated complexes of equipment and automatic machines. The organization of production operations

is planned for producing linens on the basis of automated circular knitting multisystem two-bed [dvukhfonturnyye] machines and flat-bed knitting automatic machines, which provides a 1.5-2.0-fold labor-productivity increase, improved quality and expanded product assortment.

In finishing production, work will be continued on intensification of technological processes and creation of automated equipment for high-quality finishing of fabrics and knitted products.

In the solution of all these important tasks, a leading role belongs to sectoral science. Within the organization of the USSR Ministry of Light Industry, more than 30 scientific-research institutes are at work. This constitutes a large scientific potential. And we have the right to expect an effective return from scientific workers.

We have institutes which are being actively restructured and are taking the course of solving essentially new scientific problems with high economic effectiveness. At the same time, there are many scientific-research institutes and design bureaus which basically direct their efforts at working out problems of secondary importance. In this connection, the USSR Ministry of Light Industry is now adopting most serious measures to determine while yet in the 12th Five-Year Plan the direction of scientific and technical thought and in accordance with set tasks to see to it that scientific developments are more quickly introduced into production and contribute a more significant return.

The returns from research conducted by VUZ scientists must be increased.

Higher educational institutions are taking an active part in the fulfillment of programs for solving most important scientific-research problems. Involvement of students in scientific-research work in departments and on the basis of contracts with industry contributes to raising the training level of future specialists and to inculcation in them of a creative approach to the use of acquired knowledge. At the same time, a number of sectoral scientific-research laboratories are engaged in research on problems of importance to light industry. However, this research is sometimes conducted over a protracted time and does not culminate in wide-scale introduction of its results in industry. It frequently provides a low economic effect or sometimes none whatsoever. In order to increase the effectiveness of VUZ sciences, we think it would be necessary to speed up the solution of the question of transferring the operation of sectoral scientific-research laboratories to work on job orders inasmuch as the sector is already being shifted to the system of remuneration for fully completed scientific research.

Activation of VUZ science and boosting the effectiveness of its developments are a task which it is important to accomplish not just from the point of view of today's production needs of industry. The quality of training of engineering and technical personnel at VUZ's is no less important and is of exceptional importance to our sector. The strategy of accelerating the country's social and economic development presupposes not only intensification of production but above all intensification of thinking and a sharp change in the consciousness and practical activity of each worker and each manager.

In the accomplishment of the responsible tasks facing the sector relating to fulfillment of plans of the 12th Five-Year Plan, a decisive role is bound to be played by the decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning, Economic Stimulation and Developing Production Management of Consumer Goods in Light Industry."

The main point of this document is that the basis of developing production plans for enterprises is not a method of working "from what has been accomplished" but one of trade orders and results of wholesale fairs.

Changing the system of indicators and strengthening economic methods of operation as the result of a sharp increase in the role of profit create the necessary conditions for enterprises of light industry for increasing production of high-quality products and fuller satisfaction of the population's growing needs.

It is necessary to stress that the new decree by itself does not automatically solve all the problems facing us. Purposeful and energetic work is needed on the part of all workers of the sector in implementing the principal positions of this document. Everyone must learn to work in a new way and to psychologically restructure himself.

In the solution of the main question--a sharp rise in product quality while taking into consideration the development trends of modern style--we expect a great deal from the realization of a complex of measures on improving management with the aim of bringing production maximally closer to consumers. At the same time, the transition will have to be made to organizing management, as a rule, on the basis of the scheme ministry--production association (enterprise).

The makeup of the primary unit of industry will have to be significantly improved, associations of a new type will have to be created, the network of firm trade expanded and the production base of Houses of Models will have to be bolstered.

A major influence on increasing the production of high-quality, particularly stylish products can be and must be exerted by all-out development of firm trade, which we hope will become not only a center for study of demand but also a powerful stimulus in the work of labor collectives and will boost their economic and moral interest in the production of goods of the highest quality.

All these measures that will have to be carried out in accordance with the indicated decree will contribute to improving the quality and expansion of the assortment of goods of light industry and increasing the production of new products of improved quality with an N index and especially stylish goods sold on the basis of contract prices. As we know, the decree provides that profit obtained from the sale of particularly stylish items stays at the disposal of industry, which is especially important at the present time. This does not mean in any way that it is necessary at the same time to curtail the production of inexpensive, cheap goods of mass demand. Nonetheless, a significant increase in the output of products in no way inferior and even superior in terms of their level to the best world models is extremely

necessary for the satisfaction of the constantly growing demands of the Soviet people for high-quality and particularly stylish products.

It is also necessary to sharply strengthen state, plan and production discipline at enterprises, to increase the responsibility of each worker, specialist and manager in the struggle for production quality and for the end results of labor and to direct production to put out products in the strictly ordered assortment, not permitting any breakdowns in work. It can be said that the viability of labor collectives decisively depends on this. Their work in conformity with the new conditions of management will be based on the principles of self-financing and self-reimbursement. It should be remembered that for each percent of delivery plan underfulfillment under the new conditions of work, payments into material incentive funds will be reduced by 3 percent. Moreover, payments into these funds will be reduced by the sum of fines paid for delivery shortage and breach of product assortment. These requirements insistently dictate the need of a radical restructuring in the work of light-industry enterprises and raising the accountability of all managers without exception for unconditional fulfillment of contractual deliveries.

Last year, work became somewhat more active in the sector on fulfilling the plan of product deliveries in accordance with concluded contracts. At the same time, there are still many defects. In 1986, a number of enterprises did not fulfill the contract delivery plan.

Large sums were paid out in the form of fine sanctions for incomplete delivery of products, breach of assortment and low product quality.

Under the new conditions of work, fulfillment of the profit plan will largely depend on the solution of the problem of improving quality and assortment and timely and strict fulfillment of contracts, which means the sums of payments into funds of the enterprise and its further production and social development.

In close interrelationship with the solution of this important problem is the problem of all-out saving of raw and other materials requiring demanding, purposeful work. The main thing now is not a larger resource potential but improvement of its use. This is the way the question was put by the 27th Party Congress.

The struggle for economy of all types of material resources is acquiring exceptionally great importance in such sectors as ours in connection with the fact that, as we know, the cost of raw materials in the production cost of light industry varies from 75 to 93 percent. It is necessary to take into consideration in practical work that the price of products will be primarily formed on the basis of their qualities and consumer properties. For this reason, it is important to do work to reduce materials intensiveness of products.

On the basis of a sharp rise in quality and expansion of goods assortment with maximum reduction and all-out economy of raw materials, we are going to solve a complex of questions connected with ensuring the fulfillment of the profit plan.

Higher efficiency in the operation of enterprises will be promoted by the fact that economic motivation funds in accordance with the new decree are being formed from the total profit left at the disposal of enterprises on the basis of stable norms (for the 5-year period). The USSR Ministry of Light Industry has worked out and passed on these norms to jurisdictional organizations. But work on their improvement has to be continued.

The exceptionally responsible tasks facing light industry during the 12th Five-Year Plan cannot be successfully solved without maximal consideration of social questions.

Concern for laboring people continues to be our chief party and political task and is a determining factor in uplifting workers' attitude and displaying their interests in the results of their work, which in the final analysis results in reduction of personnel turnover and the creation of stable labor collectives.

The collegium of the USSR Ministry of Light Industry jointly with the Central Committee of the Trade Union of Workers of the Textile and Light Industry worked out a comprehensive social program for the 12th Five-Year Plan with which it is envisaged to completely solve before 1990 the problem of providing the sector's workers with preschool institutions, to improve availability of places in pioneer camps and treatment and health-improvement institutions and to develop a public dining and dietetic network as well as one of clubs and sports installations. At the same time, a significant portion of the work is planned to be carried out with own resources. The ministry expects to allocate no less than 50 percent of the monetary assets of the fund of social and cultural measures and housing construction of light-industry enterprises as specified by the new decree of the CPSU Central Committee and the USSR Council of Ministers for the construction of housing and other social facilities.

Moreover, a determined search for and active utilization of other existing possibilities are required: cooperative construction and bank credits.

A great deal needs to be done, moreover in the shortest possible time, but the scale of the work is extremely large. The active restructuring of the economic mechanism in light industry, comprehensive realization of outlined measures and greater responsibility and discipline at all levels of management--all this will contribute to the solution of the most important task of increasing the output of sound, high-quality and stylish goods for the people in accordance with the needs of the Soviet people.

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NEED FOR MORE COOPERATIVE CAFES ADVOCATED

Moscow TRUD in Russian 29 Apr 87 p 4

[Article by I. Mogila: "A Few Cafes Do Not Make the Difference"; first paragraph is TRUD introduction]

[Text] Journalists wrote so much about the cooperative cafe on Kropotkinskaya Street before its opening and during the first days of operation that it became the capital's distinctive point of interest. However, what are several dozens of seats for a city with a multimillion population--a drop in the sea! How many such public dining spots are needed? Dozens and hundreds! What holds back the development of this new form of service for the public? The editorial department became interested in these questions not by accident. After all, only a few days remain before the Law on Individual Labor Activity goes into effect. It is time to sum up the experiment.

The line at the doors of the first cooperative cafe in Moscow is seen from afar. I dropped in there, when the cafe was supposed to close for a lunch break, but the room was still full. It seemed that the waiter did not intend to rush the guests, as though he had not already finished one-half of a strenuous shift, but was just receiving old friends and was glad to try to bring all the tastiest things to them from the kitchen.

Yes, the service is up to par here. Every visitor is received as a welcome guest. Waiters will try to fulfill any of your whims and will bestow a smile upon you. However, when I glanced at the blackboard in the bar, where today's menu was written with a chalk, my mood, to be honest, dropped somewhat. This is what I read: "a bouquet of fresh vegetables--4 rubles 50 kopecks; mushrooms with meat--4 rubles 50 kopecks; veal with sauce--7 rubles."

Any nonrated restaurant will envy such prices. Are the good service and high quality of dishes not too expensive? I began the conversation with Andrey Fedorov, chairman of the cooperative, with this question.

"Service has nothing to do with this," answered Andrey. "It is free. We are interested in such a service. With regard to high prices, for now we are helpless to change anything. After all, we are cooperative workers and buy

nearly all the products on the market. If, for example, tomatoes cost 8 rubles per kg there, we too cannot sell them more cheaply.

"However, the chief thing that hampers our work is... popularity. The cafe has only 40 seats and we are simply unable to physically provide service to all those wishing it. We have to work as on a conveyer. The constant line exhausts and oppresses us. We cannot hold out for long like this. We have already taken some action. You remember, we promised to offer fried eggs and oatmeal porridge for breakfast. Well, we had to give them up. From early in the morning there were such lines that we were physically unable to cope with the load."

I listened to Fedorov and thought about the following: The fact that the capital's first cooperative cafe has slowly begun to make concessions in the quality of service, giving up breakfasts and inexpensive and simple dishes, most likely, is due not only to the big load that has fallen to cooperative workers. In my opinion, the point lies in something else. Yes, cooperative cafes are supposed to significantly raise the level of service in the public dining system and to create a healthy competition for state enterprises. However, this requires a network of cooperative public dining "spots" and, primarily, a competition among them. With whom, with what, and for what should cooperative workers on Kropotkinskaya Street compete if they have worked in Moscow in proud isolation for a long time? Another three similar cooperative "spots" have appeared in the city only quite recently--in April. They surrender previously promised positions without a fight. Why should they bake sweet rolls for the early morning when they can open the cafe at noon and there will be no end to the guests until closing time? Why should they cook inexpensive oatmeal porridge when veal costing 7 rubles is in great demand? Why? In this way it is possible to reach the public dining level already known to us.

It turns out that the experiment, which is supposed to show the advantages of the new service form, has confirmed the opposite--how to easily nullify any innovation. However, we will not rush with conclusions. We will not forget that this is still an experiment and, when the Law on Individual Labor Activity goes into effect, various cooperative public dining "spots" will also appear like mushrooms in Moscow and everything will be in its place. Both prices in them will drop to a moderate level and they will operate as conveniently as possible for us.

However, it turned out that I was mistaken.

"This year we plan to open about 40 public dining cooperatives," said V. Malyshkov, chief of the Main Administration of Public Dining of the Moscow City Executive Committee.

"Why so few?" I was surprised, comparing this figure with the 8,000 public dining spots already operating in the capital.

"This is a new endeavor. We still have enough problems with Kropotkinskaya," V. Malyshkov answered.

V. Salnik, his deputy, proved to be even more laconic.

"Everything depends on local initiative," he said, and my question hanged in mid-air: How is that? After all, there is local initiative and not small at that. Dozens of groups wishing to establish cooperatives turn to rayon executive committees and restaurant trusts. But the latter turn down their overwhelming majority, referring to the shortage of premises and complications with their reequipment and repairs. For example, in Dzerzhinskiy Rayon only 2 out of 10 groups with initiative have found support. However, are talks about the shortage of premises not an excuse? After all, in Moscow there are many unprofitable public dining enterprises, which might as well be boarded up. Why should they not be given to cooperative workers?

"Indeed, in Moscow there are many unprofitable public dining 'spots,'" N. Stepanova, assistant to deputy chairman of the Moscow City Executive Committee, tries to introduce clarity into the situation. "Some of them will be made into cooperatives. Furthermore, the brigade contract will become widespread in the public dining system. Feeling the direct dependence of wages on commodity turnover, public dining workers will become interested in servicing clients well."

One would like to believe that this is what will happen. However, we will not rush with conclusions. For now an impression is created that attention to cooperative public dining enterprises has dried up during the period of preparation of the cafe on Kropotkinskaya Street for operation. As if those who should be primarily interested in their establishment have brushed them aside. Perhaps this interest has also disappeared? Perhaps public dining does not need a healthy competition? It is more peaceful this way.

Of course, there are still many problems with the development of cooperatives. For example, some are disturbed by the fact that cooperative workers will begin to earn too much. However, they will do so with their honest labor, giving pleasure to you and me because of the excellent quality of dishes and brilliant service. And then, the more there are such cooperatives, the lower the level of their profit will be, but the quality of service, conversely, will rise. Alas, however, for now one can only dream about this.

This situation exists not only in the capital. For example, only 11 public dining cooperatives are to be opened in Kiev this year, about 10, in Kharkov, and a little more--15--in Tallin. Does this not resemble the wish to sweeten water in the Baykal with a lump of sugar?

11439
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ESSR LIGHT INDUSTRY MINISTER SUMMARIZES SECTOR PROGRESS

Moscow EKONOMICHESKAYA GAZETA in Russian No 17, Apr 87 p 18

[Article by Yu. Kraft, ESSR Light Industry Minister, Tallin: "Commercial Success is Vitally Important to Us."]

[Text] At the beginning of the last five-year plan, labor productivity in Estonian light industry increased an average of 4-5 percent annually, whereas in 1984 it fell to a record low increase of approximately one percent. A similar situation occurred in the growth rates of production volume and commodity sales.

In January, 1985, this situation prompted Estonian SSR Light Industry to undertake an economic experiment aimed at comprehensively improving production management and commodity sales. The basic idea was to create a unified supply-production-sales complex which would ensure higher end results in production and better satisfy consumer demand.

The conditions for the experiment were developed under our own initiative. In addition to the former enterprises, associations and combines, the ministry system included three wholesale bases offering textiles, clothing and footwear, 14 company stores, a supply organization and a planning and construction enterprise.

During the years of the experiment, we established a fixed quota for the profit withholding tax in the budget. A centralized fund for production and social development was created, which, in comparison with specified funds previously allotted to the sector, made it possible to direct resources to those places where they were most needed without unnecessary restrictions and bring significant results.

During the first two years of the experiment, we managed to curb the downward spiral and increase labor productivity by an annual five-and-a-half percent.

The wholesale trade bases inherited by the ESSR Ministry of Light Industry met all the planned quotas for last year. They completed their inter-republic deliveries ahead of schedule. In order to expand the variety of commodities at the "Estlegodezhda" and "Estlegobyv" bases, decentralized commodity exchange with other republics was increased by 31 percent in 1986.

Within the network of company commerce, five stores are selling fabric, two footwear, five clothing and knitted goods and one furs and hosiery. They have all been fulfilling the plan for retail commodity circulation every month. Export deliveries have increased.

We are no longer pursuing large and impressive figures. We consider the best evaluation of the sector's work to be the fact that we essentially have no unmarketable commodities. This shows that light industry has a better feel for demand and is able to study the information obtained from wholesale markets and company stores more thoroughly. In short, we have become better attuned to consumer demand.

Since the beginning of 1987, the republic's Ministry of Light Industry has entered a new stage of reorganization. The experiment is developing and having a greater effect on the sector's entire management mechanism. In the near future, we expect to complete the development of a republic cost accounting and industrial trade complex for the production and sale of commodities.

Great hopes have been placed on the development of small cost accounting enterprises which, in accordance with the self-financing situation, are able to produce consumer commodities and also provide services to other enterprises.

According to their legal status, the small enterprises enjoy quite a wide range of rights with respect to supply and sales. The managers of these enterprises draw up the plans themselves based on the quotas, limits and orders of the consumers, taking into consideration demand and business conditions. Thus, there are no centralized plan indices, but there is vitally important orientation toward the consumer and commercial success.

The collectives of small enterprises independently develop regular schedules and rates of pay for their employees. The paying of salaries and bonuses is carried out in accordance with the team system, taking into consideration the coefficient of labor participation of each employee. The size of the bonus is not restricted.

At present, we are concentrating on the development of small enterprises and hope that they will supplement the medium-sized and large enterprises in meeting consumer demand and assist in solving a number of social problems, especially those in small towns and villages.

Having gained a certain amount of experience during the preparation, conducting and development of the experiment, let me focus on a number of key problems whose solution depends to a great extent on the continued progress of reorganization.

Light industry works for the consumer. In fact, he is the reason for our existence. A person goes to the store with a certain idea of what he wants to buy. In any case, he hopes to find quite a wide variety of commodities, wants

them to be of high quality (modern, made from good materials) and be reasonably priced.

During the past twenty years, our economists have been searching for "miracle indices" capable of solving the problems of economic development. They had to include both "the volume of production sold" and "standard net production." Now we have come as far as recording the fulfillment of delivery contracts for an extensive range of commodities. The idea is that if the supplier is required to fulfill his contract obligations for a wide variety of commodities by a strict 100 percent, the problem of satisfying consumer demand for consumer goods should essentially be solved.

Frankly speaking, we are still unable to assure the consumer in advance of a variety of commodities defined exactly by the plan. The specialists are well aware of the economic, material and technical restrictions. How can we provide the required variety of commodities during prolonged supply cycles with a limited selection of initial raw material and materials?

There are also local difficulties: our enterprises, wholesale bases and stores do not have enough warehouses for storing, sorting and filling complete orders for the required commodities on schedule. There is also a lack of computer technology for carrying out an accurate operational calculation of the detailed fulfillment of delivery contracts. Undoubtedly, the index of 100 percent fulfillment of contracts "worked" favorably and delivery discipline was strengthened. But this is another of many administrative tactics.

The solution, however, lies precisely in the economic approach. The market for means of production and various types of services has to be freed from superfluous regulations. We need to have the right to make additional operational transactions with any cooperating enterprise over and above the funds and limits, being able to take advantage of their unrestricted selection and stimulation on our part. Our cooperating enterprises and suppliers should also have the right and opportunity to react promptly to increased demands in light industry. It has been clear for a long time now that in such a vast country it is impossible to control everything from a unified center. Self-regulation should exist alongside centralized management.

Moreover, it is necessary to stimulate the development of commodity exchange between neighboring rayons as much as possible. It is just not possible for one or two single commodity enterprises in the republic to produce all the necessary inventory in their particular commodity and deliver all the types of merchandise, styles, volume, designs, colors and sizes on schedule.

Finally, it is necessary to create (and not shy away from!) a situation where single commodity enterprises can compete with each other for buyers of their product. We hope that, by exerting themselves, the small enterprises being created will become such competitors for the large ones.

A concerted effort must be made to find economical solutions to this urgent problem of satisfying consumer demand for light industry commodities. The variety of commodities offered, and particularly qualitatively competitive

products, depends directly on the raw material, materials and technology used. It is no secret that to a great extent we use imported materials and equipment. Although there has been much optimistic discussion about exports and imports recently, there have still be few practical changes.

On the one hand, there is not enough hard currency to continue large-scale purchasing from abroad. On the other, it becomes increasingly difficult for us to compete on a dynamic world market overflowing with commodities with our outdated exports. The ESSR Ministry of Light Industry has requested the right to enter into the world market. However, this issue has not yet been decided. Lengthy registration procedures are required in order to sell our relatively small amounts of commodities.

We do not want to obtain hard currency "on the side", but need to have the right to earn and use it ourselves. At present, we need to give some careful thought to what we want to use hard currency for. For this reason, we are proposing the "anti-import" approach, in other words, it should primarily be spent on that which will allow us to continue to refuse imports.

For example, our country essentially manufactures no high-quality fabric for making shirts. We have long ago compiled a list of necessary equipment (mainly manufactured by member states of the Council for Mutual Economic Aid), and the administration of the SSSR Ministry of Light Industry has approved our proposal, but there still have been no practical results.

A government commission gave specialized wholesale organizations of the ESSR Ministry of Light Industry system the right to carry out commodity-exchange transactions with trade organizations of member states of the Council for Mutual Economic Aid. Efficiency is necessary in commodity exchange, and it is understood that this is tied to seasonal prevalence, fashion, etc. Under the existing, rather lengthy registration process for business trips abroad, we have often arrived literally when the show was over. I believe that export-import restrictions should be eliminated as soon as possible, otherwise many urgent problems, such as quality, will only be solved at a snail's pace.

Now let us turn to prices. The present practice is to increase the turnover tax more or less equally for all of our production commodities. In this particular case, we are suggesting differentiation, i.e. for commodities, for example, for the elderly there should be a lower turnover tax, and for fashionable items a higher one.

Light industry does not determine retail prices. An even more serious problem for us is that frequently when retail prices are increased, wholesale prices for certain commodities decrease.

Critics suggest that we decrease production costs and lower prices. However, there is relatively little room to maneuver in our country. Almost 90 percent of production costs for our commodities is spent on raw material and materials, and it is their price that to a great extent determines the cost of our production.

Wages constitute only an insignificant part of the cost of light industry commodities, and it is impossible to decrease them by any significant amount. Of course, there is a way, and that is scientific and technological progress and a completely new generation of equipment. However, at present, reorganization in machine building has only just begun.

Thus, a reduction, or to be more exact, stabilization of prices for light industry commodities is a problem which depends on radical reorganization of industry. Efficiency must be increased in all its spheres, the economic activity base must be strengthened and, primarily, the problem of prices must be solved. A promising "anti-spending" mechanism, corresponding to a reduction in price, for which many scientist-economists are searching, consists again of generating a socialist competition between producers, and not between some kind of "mechanical" systems.

Reorganization in light industry constitutes part of the reorganization of the total economy and social life of the country. Searches and bold ideas are required. The ESSR Ministry of Light Industry is pursuing this path, searching, demonstrating, making mistakes, but attempting to move constantly forward.

12793
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PLANS FOR LENINGRAD COOPERATIVE SECTOR NOTED

Moscow EKONOMICHESKAYA GAZETA in Russian No 17, Apr 87 p 24

[Article by A. Shevtsov, staff correspondent, Leningrad: "What the Cooperative is Capable Of."]

[Text] "Are we going to pad the doors, boss?" a young man asked me.

"Yes," I replied. "How much will it cost?"

"With our material, fifty rubles."

Rather expensive, of course. But the longer I observe his work, the more satisfied I become. Even the heads of the upholstering nails were covered with leatherette padded with porolon, an intricate design.

"Are we going to scrape the floors?" I was asked a couple of days later.

"Yes," I nodded, "if we can agree about the price."

"Our price is the same as everyone else's: a ruble per square meter."

This statutory price seemed meager. But when the young people dragged a huge machine into the room, on whose shaft gleamed emery paper, I understood that technological progress had not bypassed even the custom production sector. It took the experts only three hours to finish three rooms.

"Are we going to put stained glass panels in the doors, boss?"

Now this was something new. Colored sketches were spread before me. Then they were placed together in such a way to create a stained glass panel for a glass kitchen door. In the center was a samovar and around the edges tea service items. The work was finely detailed and tastefully done.

Now, this is all recalled with a smile, whereas at the time it was quite a serious matter. I even felt a twinge of conscience that I was pandering to profiteers. However, for a month after I had moved into my new apartment, the housing office maintenance workers did not stop by once. I did not call on the domestic services enterprises, well aware of the "durability" of their

construction.

I believe that soon such offensive words as "profiteers", "black market workers" and "hack-workers" will remain only as characteristics of those who are unskilled and do their work in a slipshod manner. The situation should change drastically after the Law on Custom Labor goes into effect. It is no coincidence that one of the first cooperatives organized in Leningrad has been named "Novosel."

P. Levashev, the chairman of this cooperative, has previously experienced not only the joy of moving into a new apartment, but also the disappointment in its multitude of imperfections. So he acquired all the necessary tools and, without haste, renovated the apartment with his own hands. It turned out pretty well. Other residents began asking him to do the same thing.

With time, his circle of acquaintances expanded to others doing the same kind of work. However, none of them were given the offensive status of "profiteer." Now, it is possible for them to create their own cooperative. The organizing group headed by P. Levashev went to the administration of domestic services of the ispolkom and legalized the creation of the cooperative.

At this time, it already has 30 members—builders, engineers, workers and even a designer. All of them work in their spare time from their main jobs: fitting locks, padding doors, scraping floors, changing open wiring to flush wiring, making and installing roof eaves, fitting lights and wall sockets, carrying out sanitary engineering work . . .

The entrance fee into the cooperative has been set at 300 rubles, which has already generated a sum of approximately six thousand rubles. It is used to buy tools and materials. There are many who wish to join this cooperative, but its members believe that for the initial stage membership should be limited to thirty. Those selected for the cooperative must be not only skilled but also conscientious and honest people. Otherwise, the market price will squeeze out the moral one, so to speak, and the work will be compromised.

After EKONOMICHESKAYA GAZETA published sample cooperative charters, more people began visiting the weekly's correspondents' station in Leningrad. They wanted to know how to begin and to whom to turn. I sent them to the ispolkoms of the local councils. On the spot, rough drafts for business papers and outlines for charters were drawn up. Then calls go up from the future cooperative workers— he who was not accepted was not signed up. At the beginning of March, only the outlines of six cooperatives appeared in our city of several million. In addition to "Novosel" already mentioned, a cooperative for the construction and installation of private garages for motorists is being officially registered.

In elaboration of this same "Novosel", a cooperative named "Komfort" is being created. People with artistic tastes, especially students from the Higher Academy of Arts and Industry imeni Mukhinoy, are being involved in its sphere of activity. The first item on "Komfort's" list of services is the drawing up

of designs for equipment for apartment interiors. They will also be installing doors, but . . . reconstructed ones, for example, a country izba door. The walls are to be covered not simply with wallpaper, but with flock paper. Floors in entrance halls may be covered with mosaic tiles of polyvinyl chloride, and kitchens, bathrooms and toilets with decorative ceramic tiles.

Cooperative workers have drawn attention to the fact that a considerable surplus of 35-ruble electrical fireplaces has accumulated in commerce. People would rather buy expensive ones along with a bar and refrigerator, and economic trade has a stockpile of these. But if they are built into a wall, surrounded by decorative brick, adorned with household flowers or an aquarium of fish, then even these fireplaces will make a splendid addition to an apartment interior.

I was also shown trial samples of stained glass panels for glass doors. In this case, the glass was etched with diamonds or sandblasted, which makes the drawings last forever. If the client so desires, it is also possible to make colored stained glass panels.

In short, there is no shortage of ideas. However, the organizers of the "Komfort" cooperative, A. Trifonov and A. Rakovshchik, have already encountered a tremendous number of organizational problems, which are still being resolved very slowly, and for some questions there is simply no-one to turn to for an answer. Even though these people have plenty of experience, one of them worked somewhere as an instructor for a party gorkom, a curator for a local industry and domestic services enterprise, and the other headed the technical conversion service of the "Bumaga" association.

It is well understood by the Leningrad housing administration and rayispolkoms that cooperatives are not created by private initiative. The Law has been adopted, sample charters have been drawn up and, finally, a great number of people are lending a hand in order to give this initiative a boost. Unfortunately, however, the whole thing is still moving at a snail's pace. The central figure in the creation of cooperatives is still the chairman of the ispolkom himself, and it is not easy for him to struggle with the newborn cooperatives.

So proposals have been made, written in the form of notes, incidentally, concerning the creation of a custom labor cooperative in Leningrad ("Lenkoopindtrud")— a central administration office for all custom producers and associations. This office will apparently make it possible to solve many problems which will arise during implementation of the Law on Custom Labor, thus freeing the city and rayon Councils of People's Deputies from an onslaught of citizens concerned about these problems.

This office could take on responsibility for the coordination and economical administration of cooperatives, study market demand conditions, develop those services which are presently not satisfying Leningraders' demands, and assist in obtaining means of production and necessary raw materials by directing outmoded equipment, surpluses, unmarketable items and waste raw materials to the city's enterprises. It could also be responsible for assisting in the

provision of constant monitoring of the activity of cooperative workers concerning legal questions, financial discipline and work conditions.

Several years ago, the director of Gatchinskiy Furniture Combine, I. Krivenok, showed me a laboratory which was not part of the combine. Only one person worked in it. He was an artist-designer, and he was assigned to study which souvenir items could be manufactured from production wastes. Even then he showed us various boxes made from scraps, baskets woven from lead, inlaid directory covers and other items, profitably different from similar items available in commerce.

So now it occurs to me: why not create a cooperative for manufacturing souvenirs from wastes based on this laboratory? Those who wished could also work at home in their spare time, they could obtain waste materials from the combine and for a certain price transform it into their own product.

I was in Arkhangelsk recently and was surprised to see that the store counters did not even have many items made by the famous Kholmorgorskiy bone carvers. We would all agree that mammoth and walrus tusks cannot be found anywhere nowadays, but there are still plenty of deer in Nenetsk Autonomous Okrug, aren't there? There were absolutely no colorful slippers on sale, not to mention the fur boots which every visitor clamored to buy ten years ago. Where are the famous northern bast baskets made from birch bark?

Of course, a handful of cooperative workers will not be able to saturate the market, even the one in Arkhangelsk, with all of this. However, they should not allow their trades to perish. Let them sell their commodities at cooperative prices-- we should be given the opportunity to see them not only among museum relics but also on display at exhibitions.

Cooperatives are already being created; however, financial offices, the administration of domestic services and public eating facilities and other organizations of local offices have much to do in order to make the activity of these cooperatives immediately noticed. They should consider the cooperatives their allies. Initiative "from below" has taken some executives unawares. Many are stubbornly biding their time and dreaming at the level of a well-known Chekhov character: hopefully nothing will come of it . . . Nothing bad will come of it, if this matter is conducted intelligently.

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PAPER INTERVIEWS STATE COMMITTEE ON PRICES DEPUTY CHAIRMAN

Moscow IZVESTIYA in Russian 20 May 87 p 2

[Interview with A. N. Komin, deputy chairman of the USSR State Committee on Prices (Goskomtsen), by IZVESTIYA correspondent V. Romanyuk: "Prices -- Obstacle or Incentive?"; date and place not specified; first three paragraphs are IZVESTIYA introduction and last three paragraphs are editorial commentary]

[Text] In a conversation between the chairman of the USSR State Committee for Labor and Social Relations, I. Gladkiy, and a correspondent of IZVESTIYA (carried in Issue No. 104), one of the directions of management reform--improving the system of labor payment--was discussed. The discussion today is about prices. The growth of the national well-being depends to a considerable extent on how labor is paid. But it depends, too, to a significant degree on the system of pricing.

A telephone call to the editors preceded IZVESTIYA correspondent V. Romanyuk's turning to Goskomtsen for further information. "Have you heard?" an irate reader asked. "The price of potatoes has more than doubled. And, again, on the sly, in secret. What more can we expect?"

For an explanation we turn to USSR Goskomtsen First Deputy Chairman A. N. Komin. Anatoliy Nikolayevich acknowledges that he himself heard of the price rise from an acquaintance. The price was set by the Moscow City Soviet Ispolkom, which has the right to do this. The batch of potatoes in question, he says, was purchased in the Baltic area...

[Question] Not in France?

[Answer] No, only half that far, and purchased by contract with the local inhabitants, so that the price is higher. As a general rule I think it's not right to have potatoes sold the year round at a fixed price. The price per kilo ought to go up since the production cost is rising.

Unfortunately, for a whole decade we have not tied the pricing system to expenditures for products in various fields and we have not looked upon pricing as an integrally related system. As a result there has been an accumulation in the price system of enormous contradictions and mismatches.

It was supposed, for example, that the determining line of pricing policy was an overall reduction in price levels. And such factors as the growth of labor productivity and a reduction in production costs were mentioned as the basis for this. The old edition of the CPSU Program gave precisely such a formulation. In actual fact we have never had an overall reduction in prices. At this point, it must be made perfectly clear, especially in print, including in the pages of IZVESTIYA, the question arises, why the policy of reducing prices has never been carried out. There are no economic conditions for putting such a policy into effect. The growth of labor productivity, of course, is always accompanied by an increase in wages of workers and office personnel--in both productive and non-productive areas. The economic effect is brought about precisely in this way.

[Question] But people even of the middle generation can remember well the post-war reduction in prices. They took it as a real manifestation of state concern for raising the standard of living of the workers. And even now from time to time prices go down for one commodity or another. Unfortunately, we have occasion to be concerned more often with price rises, despite the fact that reductions are widely proclaimed, whereas rises in prices we learn about for the most part over the counter, as in the case of the Baltic potatoes.

[Answer] Well, in the first place, about the price reductions of 1949-1954. They took place under unique circumstances. The currency reform of 1947 had just been carried out. Instead of "ration" prices (very low) or commercial prices (very high), a single set of prices was established. The level of fixed wholesale prices introduced at that time was on the average three times higher than before the war. During those years we managed to hold in balance the money supply and wholesale prices for goods in mass demand. Additional productive resources appeared--fabrics and clothing and footwear--that had formerly gone to the war effort. It is quite true that there was a reduction in prices, but a state loan was floated that was approximately equal to the amount of the reduction. Once every two years national economy output norms were reviewed, while keeping basic wage rates at their former level. Income in rural areas was frozen, and insufficient attention was paid to housing, pensions, and a number of other problems. In 1953 a reorganization of the countryside began to get underway; purchase prices were raised and significant sums were directed at social needs. Possibilities for reducing wholesale prices became correspondingly curtailed.

[Question] But isn't the pricing system supposed to stimulate the economy? In the meantime the most noticeable measures taken by Goskomtsen amount to the same old elevation of prices. Prices have been stabilized, as a rule, when they have reached a "high," if they have not gone higher. Prices for rugs have risen three times, until purchasers have cooled on them. Prices for articles of fur were also raised three times, then lowered twice without any particular effect. A psychological factor entered into force that the experts call "buyer apathy." The commodity won't move. Who bears responsibility for errors of this kind? Readers rightfully insist that Goskomtsen should bear increased responsibility for the kind of decisions

that today promise profits in one form or another and tomorrow result in losses.

[Answer] The overall level that prices have risen is minimal. Let me say, too, that a situation has developed where wholesale prices in branches producing raw materials have become reduced, and these branches are no longer paying for themselves. Many products are now being sold at losses to the state. How did such a situation come about? Over the last three decades purchase prices for agricultural produce have risen by a factor of 4.6, including ham, for example, which has risen by a factor of 11, yet the retail price of which has remained virtually unchanged. We are now selling meat at a price that is two and a half times lower than production cost, and milk that is twice as low as it costs to produce. Butter, potatoes, vegetables, fish, many kinds of bread and flour products, and most hulled and rolled products are marketed at a loss to the state.

The country cannot live long under conditions of economic loss. Yet that is just where we are headed if prices continue fulfilling only a distributional function. To balance state income and expenditures, we should receive from the sale of goods a net profit of no less than 35 percent (which now comes to around 32 percent). Until recently a substantial share of this profit came from the sale of wine and vodka as well as imported goods. Now, however, the production of vodka and wine have been curtailed and there are fewer imports for sale. That leaves an extremely narrow range of goods on which it is possible to make any extra profit: passenger cars, gasoline, rugs, cut-glass ware, jewelry...

[Question] Anatoliy Nikolayevich, are you yourself satisfied with retail prices?

[Answer] Of course not. I want to acquire some video equipment and a stereo tape recorder, but for the time being the prices are so high that I can't realize my wish.

[Question] And prices, of course, are continuing to rise...

[Answer] That's true. Notwithstanding the fact that we adhere to the line for stabilization.

[Question] And that is exactly what our readers have to argue with you about. For example, an alarm clock for 5 rubles has become a rarity. At best one can be bought for 15 or 20 rubles. And these "improved" alarm clocks break down even more than ever.

[Answer] To contend with a preponderance of goods that are more costly in times of a shortage is not so easy. The way out, as I see it, is in saturating the market with goods. As the demand goes down, you may be sure, the price is going to decline.

[Question] That means when goods are in abundance, a reduction in prices will follow...

[Answer] No, There will not be any overall reduction in prices--for individual items, that is another matter.

[Question] And rugs and cut-glass ware? These are the items mentioned. Since prices were raised, the proceeds from their sale have been sharply reduced.

[Answer] We reduced the prices of these articles in 1986, which stimulated the market for them. Maybe a further reduction is in order, but it is too early to tell. As of now stocks of these goods on the whole do not exceed the norm.

[Question] Meanwhile, national savings, simply set aside in savings accounts, come to more than 240 billion rubles, and while the shelves are crammed with goods. That means, the people aren't satisfied with the product, in terms of variety, quality, or possibly even price, does it not?

[Answer] Half of these funds are being withdrawn from the savings accounts and then covered by new deposits. The other half does indeed remain without circulation. Savings, in principle, are not a bad thing. They serve to insure living standards, and they afford confidence in the days that lie ahead. But, of course, the needs of the people should dovetail with the possibility of their satisfaction.

[Question] It's a pity that the needs of the less well provided-for families should be feeling the pinch in this respect. A quality suit for 70 rubles, let's say, is now impossible to purchase, but 10 years or so ago such articles could be found on sale.

[Answer] You wouldn't want to put on such a suit today. Most buyers would find both the style and fit unsatisfactory. Our conception of what goods are "cheap" is continuing to change. What was considered in the middle range in price yesterday is becoming cheap today, and what was cheap, as a general rule, is out of stock.

[Question] And what does this mean then for newlyweds? For pensioners?

[Answer] I repeat, the principal way to resolve this problem is by saturating the market with goods. Fabrics and materials for children's clothing have undergone a retail price reduction on the order of from 10 to 65 percent, totally more than 2 billion rubles. Possibly, we should switch to direct cash subsidies for young families.

[Question] What sort of price index do we have today? Many people feel that it has risen excessively.

[Answer] Over the past 15 years the state retail price index for the country as a whole has risen no more than 8 percent in all. Despite the

increase in wages, pensions, benefits, and other public services and disbursements from social consumption funds, there has been virtually no effect on the growth rate of the population's real income. But the consumer market has changed, and demand has become more selective. The price index, by the way, is published once a year in compilations by the USSR Central Statistical Administration. It is true that in its present form it does not accurately reflect the picture as a whole. Certain countries have consumer price statistics: a tabulation is made according to a "basket" of commodities. The basket contains an entire collection of goods in daily use by a specific segment of the population. In this way current prices are compared with those of past years. Such a price index, I think, compiled on the basis of a consumer's basket, gives a more genuine reflection of what is going on inside the economy, and it might be well for us to introduce similar statistics.

[Question] Perhaps, rather than simply count up what is to be found in the basket, it would be better to plan price categories of goods--inexpensive, average and costly.

[Answer] Yes, price categories should be planned. This, by the way, is envisioned in the decree of the CP Central Committee and the USSR Council of Ministers on improving planning in light industry and trade. Alas, this resource is not working out well "down below" at the level of the enterprise. Not well at all. By producing cheap goods a factory loses both volume and profit. Who today is going to take that route under conditions of self-financing?

[Question] In connection with this, let's talk for a moment about industrial products. Many readers reasonably raise the question: Aren't we paying dearly for whatever superiority in quality there may be in goods marked with the Emblem of Quality and index "N"? Twenty-five percent of the products manufactured by light industries are identified as new ones and for each one of them there is a surcharge, under some conditions of as much as a hundred percent. The fact of the matter is that the unrestrained use of these symbols of excellence has turned into one of the forms of unjustified price-hiking. There are simply no limitations of any kind since there is no clearcut method for establishing what is a new product. The discussion about what should be the basis for establishing the degree of innovation--that is, the limit beyond which new prices should be set, how to determine the functional relationship between price level and quality, and how to devise an optimum scale of surcharges, etc.--goes on and on. Wouldn't it be better to eliminate markups altogether and leave it up to demand alone as it relates to the world price level and consumer need?

[Answer] I won't say that the index "N" is a godsend or prime mover, it is simply a device till another is found. For 13 years we have been using the markup mechanism in wholesale pricing for high-efficiency output, and for 8 years we have marking down or discounting prices for obsolescent products. But we cannot lift the technological level of products by means of the price mechanism alone. We must resolve an entire complex of questions insofar as they pertain to technology, the organization of production, and training of cadres. What we need are new ideas embodied in scientific thought.

[Question] We have heard a good deal about contradictions between the price and the plan. A manufacturing plant with a tight plan for output volume tries to increase output of the more expensive articles and to cut down on those that are cheaper. Of course, they don't do so directly but in the name of "renewing" the line. At the same time the management tries to raise the price for their products.

[Answer] We are struggling with this phenomenon. At our suggestion the draft law on state enterprises contains a proposal for strengthening control over the strict monitoring of price discipline. We believe that any unsubstantiated gain accruing to the enterprise should be returned to the budget and excluded from data offered in fulfillment of the plan. We are proposing also to establish a system whereby enterprises that have raised prices above what they should have pay fines, fully compensating the budget for unlawful profits they have made.

[Question] But you yourself have said that enterprise activity is determined by indicators of value. That is, basically, expenditures. Now the creation of a radically new article of manufacture always requires very substantial initial expenditures. This should be taken into consideration in forming prices flexibly for the first batch. In every instance, however, the very same thing is repeated: Goskomtsen tries to "jam" all the expenses for innovation immediately into the price. We all know what this leads to. Unduly high prices for a new product lead to a cool reception on the part of the consumers.

[Answer] That is not altogether true. It is necessary to bear in mind an aggregate of factors. Take machine tools with numerical control. As recently as three years ago they were selling at world prices. But then we began to lag behind, primarily in electronics and microprocessing technology, as production costs in other countries declined substantially. As a result our base costs became 2.5 times higher than on the world market. Attaining sufficiency in electronics generally costs a good deal. In addition, we must pay for mistakes in planning. In every review of prices, planning and financial organs demand above everything else enterprises failing to make a profit and unprofitable products be reduced to a minimum. At the same time faults of the ministries and planning errors are covered up. The enterprises that poorly update output, uneconomically use resources, and unsuccessfully master new production capacities should, if we look at the matter objectively, be stuck with the losses. But they sometimes get along no worse than the industry leaders.

Restructuring prices means fundamental improvement of the entire price formation system. This can only be brought about on the basis of a broader distribution of material goods and services in the form of socially necessary labor at all stages of production. Goskomtsen recognizes as its principal task pricing practices insofar as they are functionally related to resolving the problems of improving the well-being of the Soviet people.

[Editorial comment] The CPSU Central Committee Plenum in June 1986 emphasized that raising prices could be justified only if required by a substantial improvement in terms of consumer characteristics of products and more efficient manufacturing methods. It is only the increase in social value--not the increase in expenditure--that can serve as a basis for price revision.

The party has sharply projected the problem of inadmissible price inflation for machinery and equipment under the pretext of "modernization," and the artful expansion of commodity production volume through the "interplay" of prices. Every kind of unjustified overpricing not only fails in attempting to cure economic illness but corrupts workers, slows technological progress, and impedes the restructuring process.

We may agree with the remark of A. Kamin that economic expenditure cannot be reduced to a matter of price-setting. But without a restructuring of the price system there can be no talk of improving the economic mechanism as a whole or creating the conditions necessary for conversion to economic methods of controlling the economy.

12889
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KaSSR LIGHT INDUSTRY SEEKS BETTER QUALITY CONTROL

Moscow EKONOMICHESKAYA GAZETA in Russian No 16, Apr 87 p 19

[Article by Ye. Kozlov, staff correspondent, Alma-Ata: "Clothes Made From . . . Orders".]

[Text] Gosstandart of the Kazakh SSR made a decision to annul a formal document concerning the introduction of a production quality control system at "model" association "Dzhetysu". Gosstandart has used the same form of punishment against three other of the republic's leading light industry enterprises. What has caused the sector's "flag officers" to exhibit such behavior?

Several years ago the Kazakh SSR Ministry of Light Industry issued an order, according to which the Alma-Ata footwear production association "Dzhetysu" was supposed to become a model enterprise.

To judge by sector reports, this task was accomplished even before it was set: more than a third of the production at this enterprise consisted of innovative items, and the variety of commodities was constantly updated. One of the published advertising brochures maintained that all the association's footwear met the consumer's highest demands.

Here is A. Dzhomartov's, the minister of the republic's light industry, opinion on the sector's work.

"Reorganization," believes the minister, "is having an extremely favorable effect on our business. According to last year's totals, the indices have improved. Production sales totalled 25 million rubles over and above the plan, and we fell short only in our footwear deliveries. Business is going to improve even more this year. Trade fairs have been held in a new way: trade is satisfied—it has purchased what it needs. The production of cheaper commodities in demand has increased. Noticeable changes have also occurred in the improvement of quality.

Certainly, such evaluations of the state of affairs in the sector arouse optimism. However, it evaporates as we become acquainted with the actual state of affairs and with the results of the collectives' work last year and during the first months of this one.

enterprises of other rayons in eliminating the shortage of thread. Now this specimen of "operational longevity" is hurriedly being redesigned to accommodate the production of knitted fabrics. And this is not an isolated example.

However, even the items the sector produces today frequently do not meet consumer demand due to low quality. Admittedly, the ministry is attempting to create an appearance of well-being. The minister of light industry, A. Dzhomartov, is presenting as a positive example data concerning the small volume of returns for alteration. However, there are plants and factories to which (according to official ministry statistics) almost every tenth item is returned. Besides, the price of "satisfactory percentages" is not very high.

For example, according to official data, at the Alma-Ata Sewing Association imeni 1 Maya hardly more than three percent of production is returned for alterations or is of low quality. Then state possession was introduced and returns immediately leapt to 70 percent.

The ministry expediently developed a "Quality" program. It gave special attention to three of the republic's pattern houses and the leading institute of the ministry, "Kazgiprotehnologlegprom." Since then, the work of these organizations has become a public scandal: patterns take years to develop and it takes even longer to introduce them into production, and as a result they are hopelessly out of style. One detail: out of fourteen projects completed by the institute only one has been implemented. Several questions have arisen concerning this. Which stores do the designers work for? What funds are used to finance their work and by what criteria is it evaluated?

In return, the reports are splendid. Reports are issued from all departments: due to the new designs, the variety of commodities in the sector is updated annually and dozens of new technological processes are being put into operation. Of what use are the reports if the new design is no better than the old?

The rust of formalism has also affected the organization of competition in the sector. The ministry has approved a considerable number of interesting undertakings, but not one of them has reached fruition.

The Chimkentskaya Sewing Factory, "Voskhod", came forward with an initiative to achieve no product returns. Last year the ministry approved the initiative. But how many enterprises embraced the initiative? Not one. The initiative essentially came to nothing. However, the reports stated that almost 40 thousand workers had embraced the initiative. Where did this figure come from? At the Ministry of Light Industry, they acted very simply: they included in the summary everyone who had committed themselves to increase the quality of production. Returns continue as before.

Personnel work has also been neglected. A comprehensive "Personnel" program exists on paper, which lists items concerning the training of managers and specialists and developing resources. In practice it is a method of reprimands. The decisions of the collegium have become stereotype: to the

Significant changes have already occurred in the reports, but not at the enterprises or on the store counters. A total of 150-200 million rubles of unmarketable light industry commodities accumulates every year in the Kazakh SSR trade network. Moreover, last year, the sector's enterprises failed to deliver for trade 33,000 ladies' spring coats and as many girls' winter coats, 40,000 pairs of pants, 15,000 school uniforms and fur jackets. The footwear situation is still extremely critical - the industry's deficit already exceeds 100,000 pairs.

"We are essentially not selling anything," says N. Chernigin, expert in the science of commodities at the Central Department Store. "The shelves are overflowing with commodities from the enterprises of the republic's light industry, but they are not what the consumer wants, and we are even ashamed to display them in the store windows. For example, the shoe department stands around virtually all day with nothing to do. The place only comes alive when a batch of men's boots are "put out." But this usually only constitutes an hour-and-a-half's work. Then once again there is not a single customer in the department.

The same scene can be witnessed in many of Alma-Ata's industrial trade stores. Business was a little livelier in the bridal salon. The counters bore a considerable amount of high-quality and attractive items. But they all proved to be . . . imported. The only local commodities were pillows and some sundry items.

No, the sector's enterprises and the republic's Ministry of Light Industry is not in any hurry to reorganize its work in the interest of the consumer. Instead of specific concerns about how to organize the production of commodities in demand, they have decided to "dress" the consumer in a multitude of orders, instructions and directions.

There is certainly no excess of outgoing paper in the republic's Ministry of Light Industry. For example, 10-15 orders are issued annually concerning the non-delivery of commodities and their low quality, and twice a month comprehensive programs are developed to deal with these problems. However, "drastic" measures usually remain on paper.

Little attention is given to the development of a production base, the introduction of progressive equipment and the assimilation of new types of production. During the 11th Five-Year Plan, due to sluggishness on the part of the client, the Ministry of Light Industry, who failed to allot the necessary amount of funds here and delayed the delivery of equipment there, only 85 percent of the plan for volume of capital investment was fulfilled and the percentage was even lower for the plan for introducing basic production funds. The situation has changed little in the 12th Five-Year Plan.

Not one of the enterprise's undertakings was completed within the standardized time limit. The situation has been reduced to paradoxes. For example, during the 15 years the Tselinogradskiy Spinning Factory has been in operation (the standardized time limit was three years), trade has succeeded with the aid of

list of shortcomings is added the names of managers who have been reprimanded, made examples of and given warnings. But everything ends with this. For example, the head of the republic's industrial association, "Kazkozhobbyvprom", U. Madaliev, has been severely warned at almost every collegium about his personal responsibility for eliminating shortcomings. There have been many warnings, but the situation has not changed in the least.

Last year, personnel turnover at the sector's enterprises constituted 19 percent. One of the main reasons is inattention to meeting the social needs of the workers. More than 30,000 people have been registered to receive housing for 15-20 years. The percentage of manual laborers at the ministry's enterprises constitutes 33 percent.

In December of last year, after the work of the ministry's party bureau was checked, a report was drawn up. Along with other shortcomings, it also noted the following: "There is essentially a lack of personal criticism of the ministry's management, the minister and his deputies." The report was discussed by the bureau and an appropriate decision was made. I asked the secretary of the party buro, G. Zhalelova, what conclusions the minister had come to.

"He is not a member of the buro and was not present during the discussion, but I have made a report to him concerning the check-up. Admittedly, it was a summary, and I disregarded the phrase about the lack of criticism about him."

Certainly, there is still a deficiency to be remedied.

12793
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USE OF POWER CAPACITY IN ECONOMIC CALCULATIONS

Moscow EKONOMICHESKIYE NAUKI in Russian No 3, 1987 pp 58-65

[Article by S. Valentey, lecturer and candidate of economic sciences: "The 'Energy Approach': Illusion or Reality?" (Continuation of a discussion begun in Issue No 9, 1986)]

[Text] L. Logvinov, in the article which initiated the discussion of the problems associated with accelerating NTP (scientific and technical progress), raised a question which for a long time has received almost no attention, even though we feel it is fully deserving of such. We are referring to the problem of using a power capacity indicator in the context of its potential for use as one of the criteria for effective NTP (1). Perhaps its a priori "seizure" is the primary reason this problem has gotten out of our field of vision. In fact, just mentioning the possibility of using this or any other "natural", non value-related indicator of effectiveness evokes in any political economist what is almost a reflex protest that here's another attempt to revise K. Marx' theory of value. But isn't it worthwhile to consider the possibility and think over once more whether this is actually a "revision"? Does the "power approach" actually countermand the "value approach" and contradict it? And finally, is the call to use a power capacity indicator a typical theoretical illusion; and if not, then what can it really contribute to the practice of national economics? We suggest that the arousal of interest in these fundamental questions can in itself be an asset to the discussion presently underway, not only as regards solving the problems which it directly addresses, but relative to general political economic knowledge as well.

The "power approach" already has a definite history which is worthy of recalling, since little is known of it.

The question of using an index of energy outlays to solve general economic problems has been posed at least three times in the domestic literature (2).

Apparently it was done first by S. A. Podolinskiy (1859-1891) (3). His position can be reduced to the following. An analysis of methods for converting solar energy into water power, coal energy and other forms of energy leads to the conclusion that the planet's energy reserves are increasing only in the form of people and animals. This conclusion has as its

basis a rather unique interpretation of the essence of the labor process: "Labor is the consumption of the mechanical and psychic work stored in an organism, the consumption of which results in an increased amount of convertible energy on the earth's surface" (4). In finding a more precisely defined similarity between man and machine (thermal), S. A. Podolinskiy at the same time notes their differences: man is capable not only of absorbing, but of storing energy as well. Labor, this author continues, does not produce matter, thus all its productivity can be contained only in joining something else not created by labor, to matter. This "something" is "convertible energy". And then he says, "The natural products of the earth are incapable of meeting all the needs of the human species. In order to meet these needs, the quantity of these products has to be increased. This is attained through useful labor" (5). Labor helps convert simpler forms of energy into more complex forms, stores them and creates the basis for further increasing Earth's population. Hence, according to S. A. Podolinskiy, "the primary objective of mankind's labor must be an absolute increase in the energy budget, since in view of the constancy of its quantum, the conversion of lower forms of energy into higher forms will reach a limit which cannot be surpassed without excessive losses energy through dissipation" (6).

S. A. Podolinskiy's work was directly opposed to the theory of value, in which connection K. Marx asked F. Engels, who was familiar with it, to express his views on the essence of Podolinskiy's position. In granting this request, F. Engels wrote, in part, that in the process of performing physical (but not economic) labor man does not save, but expends energy. And that, if one can still make certain calculations with regard to animal breeding, since plants "are converted into animal protein, fat, hide etc., and are consequently fixed for a longer period of time" than in farming, then this is all the more so, since "estimates are impossible in an industry of this sort: the joining of labor to the product is totally impossible to express in thermal units (as done by A. S. Podolinskiy--S. V.). In my opinion, it is totally impossible to express economic relations in physical measurements" (7).

As F. Engels notes, S. A. Podolinskiy forgot that "a man who is working is not only wasting the solar heat which is fixed in present time, but to a much greater measure, the solar heat which was fixed in the past....Consequently, it is in his labor, since labor fixes solar heat...that man unites the natural functions of consuming animal energy and storing plant energy" (8). Turning once again to S. A. Podolinskiy's position, F. Engels, in another letter to K. Marx, said that he believed it necessary to insert "the correction that only in farming is energy properly stored through labor; in animal husbandry, generally speaking, the energy stored in plants is merely transferred into the animal; here the question of energy storage can go no further, since without the animal breeding industry which uses them, the plants used for feed would wither and benefit no one" (9). Later, F. Engels mentions that there is little use in translating this economic fact into the language of physics, even though it is possible in principle (10).

Thus, the first instance of the problem under discussion here having been addressed in the domestic literature by S. A. Podolinskiy has been quite justly recognized as being insubstantial, and in opposition to the Marxist world view.

The second and qualitatively new stage in the investigation of this problem is already related to the formation of Soviet economic theory. Here, we need first to quote A. M. Ginzburg. In mentioning the inadequacy of existing methods of assessing labor productivity levels, he wrote, in part, that "In order to define labor productivity, we would need to calculate the amount of energy a worker expends to produce a given number of products. This problem can be solved only by adding up the psychophysical indices of work in order to express a worker's energy expenditures in kilogram-meters, no matter how the work done by mechanisms is measured" (11).

At first glance, A. M. Ginzburg's position resembles S. A. Podolinskiy's in its comparison of man with thermal machines. However, the similarity is purely external. Where S. A. Podolinskiy talks about expenditures of solar energy (in whatever form it has assumed), A. M. Ginzburg talks about adjusting the value-oriented evaluation by explaining that however real the energy (meaning human energy as well) expended by a worker (we note, incidentally, that even during Podolinskiy's time difficulties were already cropping up in connection with measuring value according to labor outlays (12)). Hence it obviously follows that there is no reason to blame A. M. Ginzburg for the fact that his position has promoted a definition of labor productivity which uses labor which has been reduced (to prime numbers), but which fails to take that labor's individual intensity into account (13). On the other hand, A. M. Ginzburg believed that assessment by value is precisely what helps to reduce labor to prime numbers. In fact, the higher the level of classification, the less human energy is expended to produce units of output. But since the level of labor productivity needs to be assessed, and an ergograph (14) cannot be used here, then the already existing approach (i.e. the value approach, in its classic sense) should be used. This approach, however (and this is true), fails to provide a clear picture of the real change in labor productivity at any given moment, as it only reflects general trends (15).

Finally, the third stage in looking into the possibility of using energy indicators in economic science evidently dates back to the end of the 1970's and the beginning of the 1980's (16), a time of intensification of the discussion of the problem of finding ways to assess the effectiveness of our society's social and economic development. Without entering into a discussion of this question, we can agree on what we believe to be one of the most interesting publications dealing with the problem under discussion in this article. The publication notes that one of the main causes of the "worsening of the quantitative and qualitative indicators for economic growth...is the fact that instead of real savings of labor, living labor is being supplanted by past labor on an unequal basis, when every step taken to increase the productivity of living labor is accompanied by this increase in the share of past labor inputs, and is not compensated for by inputs of living labor" (17).

The extremely compressed historical excursion we have taken here brings us, as applied to notions of scientific and technical progress, to the point of clarifying in which instances and by what means it is advisable to substitute past labor for living labor, since not every such substitution is economically justified. The very act of making this substitution is extremely complicated, since: 1) the regularities of NTP (scientific and technical progress and the

NTR (the Scientific and Technical Revolution) have heretofore not been revealed, as has the logic behind the development of these processes, the result of which is that (and L. Logvinov is correct in pointing this out) they have often been known to change; 2) nor have the specific procedures for using those achievements of NTP and the NTR which are characteristic of socialism been revealed; 3) there are no indicators which clearly reflect the effectiveness of introducing new equipment, the appearance of which is rightfully considered a direct result of the NTR, not the consequence of ordinary modifications or improvements in individually selected units of equipment.

There are a number of causes for this situation. We will pause to consider only the one we believe to be the major cause. A perusal of the literature shows a factual ignorance (not in words, but in deed) of the objective nature of NTP and the NTR. This negates their relative independence and their ability to have any direct bearing on the development of our productive forces, and through these forces, on the character of our production relations. Meanwhile, we are convinced that this independence is genuine. This means that there is a definite internal logic as well which, outside of any dependence on the public form of production, is subject to changes in the relation between living and embodied labor. Only by having grasped the inherent regularities in the development of the NTR can we, by using the knowledge we have obtained, unite the gains made by scientific and technical progress with the advantages of socialism, having accelerated the process of its development (18).

We fully share the idea that in these conditions, neither a reduction in labor inputs nor the replacement of manual labor by machine labor can any longer adequately reflect the essence of the qualitative changes underway in our productive forces. We need to find an indicator we can use to assess the nature of the latter and to see how purposefully our society is following the lead of the modern Scientific and Technical Revolution and scientific and technical progress. We believe that the power capacity indicator, as suggested by L. Logvinov, can play this role as well (19).

This question undoubtedly requires serious study, analysis and comparison to a vast amount of factual materials. However, there is undoubtedly a connection between the reduction in living labor inputs (and consequently, expenditures of human energy) and the increase in public labor inputs (which are related primarily to increased energy expenditures). Nor is there any doubt that a proportional relationship could be found between the change in the relationship between living and public labor inputs, and the expenditure of human and, for example, electrical energy (20).

Of course, what has been said so far gives us no reason to confuse these two radically different types of energy expenditures which compare a man with a machine as done by S. A. Podolinskiy and A. M. Ginzburg in part and as, it seems, L. Logvinov attempts in referring to human work "in the philosophical sense" (21). Meanwhile, we do not object to the idea that "new techniques and production methods are introduced into industry every time the increase in the useful result (of a product or service) exceeds the increase in energy outlays..." (22), i.e. when the energy consumed by output units decreases.

However, it is important that we make a number of refinements here. First, we must have in mind not just any increase in energy outlays, or just any increase in the useful result, but qualitatively new levels for these increases. Second, as follows from the calculations made by L. Logvinov himself (23), new techniques must be introduced only where the useful result has increased. It is precisely the fact that the practice guiding the thesis that the general supplanting of manual labor is proof of increased labor productivity is not in conformity to principle which, we feel, explains to a great degree the reduced economic growth rates observed in our country during the 1970's and the first half of the 1980's. At the same time, having acknowledged that the replacement of living labor by past labor is governed by a certain internal logic, we also have to recognize the fact that the Scientific and Technical Revolution which began in the 1950's requires that we take another look at this process and a different approach to the planning of growth in public production than that which existed, for example, when our country was being industrialized. The qualitative changes in the rates and proportions of growth in the productive forces, which found expression in particular in the swift increase in energy outlays and in the drastic, unprecedented increase in society's dependence on the quantity and cost of energy, required more than a simple improvement in accounting the expenditures of the latter, but that these expenditures be correlated with labor outlays as well.

And here we come back to the question raised at the beginning of the article: doesn't the summons to use power capacity indicators denote a repudiation of the Marxist theory of value? We are convinced that this question can be rightfully answered in the negative. Proof of this, it seems, is contained in L. Logvinov's article, where he attempts, having compared the outlays of standard fuel in Japan and the USSR's energy outlays with their respective national and gross public product, to show that our country uses less new equipment (24). At the same time, this approach can reflect only the most general trends, specifically the degree to which we have changed over to present-day intensive production methods. There is no requirement in practice, first, for constant supervision of changes in the technical and economic characteristics of productive forces and, second, for an analysis of the intersectorial movement of a product in the course of its production by calculating increases in its cost or by any other method. And here we must no longer avoid the problem of pricing, since it is the price itself which must become the "economic press which forces enterprises to constantly strive to perfect their production and improve the technical and economic parameters of their machines, equipment and other output" (25). So the approach espoused by L. Logvinov must obviously be augmented: since the change in the level of energy outlays is connected with the intersectorial circulation of output and has a direct effect on it, it must be expressed in current prices.

We have already written about the fact that an indicator for energy outlays can be used to determine how effectively our reproductive resources are being utilized (26). We shall try again, using a number of additional arguments, to focus on the question of the possibility of using this indicator.

In the first place, their own modes of production, energy use and types of energy resources correspond to the productive forces' appointed level of development (27). Second, it can be confirmed that the principle of "minimal outlays with maximum result" has been observed more in the production of all forms of energy (the history of which goes as far back as mankind's) than anywhere else. In other words, the conditions needed to produce energy are characterized by utmost rationality. Third, the means (technology) available in this or any other period for producing energy in a given nation are practically always identical. All this supports the conclusion that, other than the basic productive force, the development of society produces no other "products" as clear as the type or scope of those energy expenditures which reflect the level of the productive forces. Not only does public labor productivity determine the effectiveness of production and energy utilization, but it depends on them as well.

Electric power presently comprises the energy base for our productive forces. Its role was predetermined by the industrial revolution of the end of the 18th and beginning of the 19th centuries which, we feel, initiated scientific and technical progress, when capitalist factories dominated the economy. This is the moment from which we began seeing not only manual labor being replaced by machine labor, but a drastic increase in energy expenditures as well: first steam, and then from the end of the 19th century on, electrical energy. As a result, there is presently not a single product, the manufacture of which would not cost society expenditures of electric power, and the more labor is automated and mechanized, the more the mass of energy resources is used up.

In this connection, we wish to emphasize one fundamental circumstance. In view of the general tendency to increase outlays, one cannot help but see that these outlays differ in specific enterprises. And this means the production not only of different use values (which is natural here), but of identical use values. Here, we are aware of more evidence in favor of the possibility and the need to use an indicator of energy outlays as one of the criteria for effectiveness in scientific and technical progress.

Thus, if we produce a single type of equipment in a number of enterprises where the level at which production is organized, equipment quality etc., vary, then we encounter different levels of consumption not only of living labor, but of energy as well. If we extract one kind of mineral of the same quality (say, coal with a uniform calorificity index), but which is deposited at different depths, then here both labor and energy outlays will differ. This is how the entire "extraction--processing--production of final product" manufacturing chain can be described, not only by increasing labor outlays, but also by estimating subsequent increases in energy outlays. And the latter (in contrast to the former) can be accurately recorded at any given moment.

In principle it seems possible, using the method set forth here, to solve one of the most complex problems of contemporary economic theory and practice: in using the energy expenditure indicator, we find ourselves capable not simply of seeing an increase in the "energy-value" of output, but capable as well (if we succeed in uncovering and calculating the relationship between reduced outlays of living labor and increased outlays of energy, or a change in this relationship in the opposite direction) of changing the value of our output by

the indirect method, thus bringing about a real change in prices as the product moves through the manufacturing chain all the way to the point of manufacture. All this, as we understand it, suggests that using the indicator for energy outlays in this way by no means replaces the value approach but corrects it only within completely justified and rational limits, particularly considering that we need to develop our productive forces to the utmost, strengthens the scientific basis of the pricing system and improves it in the bargain (but in no wise abrogates it, as would had to have happened had the indicator for energy outlays been put in opposition to the value indicator).

We are trying to imagine an example of exactly how to use the power capacity indicator. If, say, we evaluate 1 kW/hour of electric power (and here we can make our calculations in tons of standard fuel as well) at 1 kopeck, then the outlays needed to manufacture a certain type of machine tool can be shown as follows: it costs society R100 (10,000 kW/hours) to recover the amount of coal, metal and other materials needed to manufacture it, with R200 needed to process the materials (20,000 kW/hours of electric power), R300 (30,000 kW/hours) to manufacture the machine tool itself, R100 (10,000 kW/hours) for transporting it, R50 (5,000 kW/hours) for storage, and so on. As a result, it was determined that it would cost society R750, or 75,000 kW/hours to manufacture a machine tool of this type (28).

Consequently, in no way claiming to be a replacement for the value calculation, the proposed method only fixes the rates and proportions for changes in average energy outlays or those needed to manufacture product units. It turn, the indicators thus used have to be compared to the indicators for effectiveness when using living labor. At the same time one cannot help but see the advantages in using the proposed calculating method to set prices: when showing the propriety of replacing living labor with past labor (which we believe can be established by using the power capacity indicator) we can determine the proportions at which prices for a product must be increased, beginning at the moment the raw materials are extracted and concluding with the manufacture of the finished product. This will result in the prices being "united" with satisfactory validity, and will ensure their "continuity". We feel that absence of the latter would make it impossible to overcome many of the problems associated with accelerating scientific and technical progress, since the extent to which one product is more (or less) costly than another, or the extent to which a semimanufacture is less costly than a finished product, is frequently not considered when pricing output.

As shown here, the suggested approach allows changes in product quality to be taken into account as well. If equipment is being manufactured at a level of quality lower than similar equipment manufactured domestically (or abroad), then output manufactured using this indicator will "cost" greater energy outlays than that manufactured using better equipment. This has been found not only when energy outlays increase immediately when such equipment is used, but also when this requires tremendous amount of raw materials, materials etc.

Having presented our views on the question of the feasibility of using power capacity in economic calculations in the most general form, we seek first of all to stimulate the development of what seems to us an extremely important direction of the previously initiated discussion.

FOOTNOTES

1. See EKONOMICHESKIYE NAUKI, No 9, 1986, p 19.
2. We note that this question was taken up by A. P. Ogurtsov in his preface to the book by G. Odum and E. Odum, "Energeticheskiy bazis cheloveka" [Man's Power Engineering Base]. Moscow, 1978, pp 5-26. However, A. P. Ogurtsov failed to set himself the task of making a politico-economic analysis of this concept.
3. See S. A. Podolinskiy, "Trud cheloveka i ego otnosheniye k raspredeleniyu energii" [Man's Work and Its Relation to Energy Distribution]. SLOVO. St. Petersburg, No 4, 1880, pp 132-212.
4. Ibid., p 160.
5. Ibid., p 182.
6. Ibid., p 212.
7. K.Marx and F. Engels. "Cochineniye" [Works], 2nd Edition, Vol 35, p 110
8. Ibid., pp 110-111.
9. Ibid., pp 111-112.
10. See Ibid. The calculations used in this "translation" were made by G. and E. Odum (see their works, indicated above, p 124). The authors used these calculations in their attempt to express the effectiveness of public production through the expenditure of the energy which has been accumulated on the planet (by reducing all its various forms to a single energy indicator). In this connection, it is important that we emphasize that in contrast to S. A. Podolinskiy, G. and E. Odum believe it impossible to continue increasing the power-engineering budget and, as A. P. Ogurtsov correctly notes in his preface to their book, they thus side with the zero-growth adherents.
11. A. M. Ginzburg, "K voprosu o proizvoditelnosti truda i zarabotnoy plate v promyshlennosti" [On the Question of Labor Productivity and Wages in Industry]. Moscow, 1924, p 12.
12. In this connection, Academician S. G. Strumilin, in his introductory article to V. L. Belenkiy's book "Indeksy proizvoditelnosti truda" [Labor Productivity Indices] has written, "But, as often happens here, when they calculate our gross output per man-day or some other unit for measuring the absolute level of labor productivity at a given moment, they fall into error. Frankly speaking, in order to measure the absolute level of labor productivity in complex productions, we do not have, nor can there be any sort of index, since such a level could only be measured by the quantity of the product or by the total of usefulness which they

represent. And we don't know how to derive a total for different types of usefulness." (see V. L. Belenkiy, op. cit., Leningrad, 1930, p 23.).

13. See L. Fridberg, "Sovetskaya ekonomicheskaya literatura 20-kh--nachala 30-kh godov o proizvoditelnosti truda" [Soviet Economic Literature of the 1920's and 1930's on the Subject of Labor Productivity], EKONOMICHESKIYE NAUKI. No 11, 1983, p 56.
14. An ergograph is an instrument used to determine the degree of fatigue or exhaustion of a worker through his expenditure of calories. It was proposed in 1890 by an Italian named Mosso.
15. As A. M. Ginzburg wrote, "Every worker works with a different degree of intensity, and this is why the method characterized by us (the cost method--S. V.) can only represent the productivity of a worker, irrespective of the energy he expends" (A. M. Ginzburg, Works, p 13).
16. Characteristically, the scientists who first addressed this problem at this stage are not specialists in economic science (see N. N. Moiseyev "Chelovek, sreda, obshchestvo" [Man, the Environment and Society]. Moscow, 1982, pp 218-219.
17. A. Bagdasarov and S. Pervushin, "Proizvoditelnost truda: teoriya, praktika, rezervy rosta" [Labor Productivity: Theory, Practice and Reserves for Growth]. KOMMUNIST. No 2, 1983, p 16.
18. Incidentally, the very posing of the question of this "union", which has been generally recognized, is meaningless if it is not based on the fact that we are talking about two independent phenomena, each of which has its own content and its own regularities of development. We note as well the incontestable fact that the very question of uniting the Scientific and Technical Revolution with the advantages of socialism was posed, was deliberately based on the fact that the regularities of the Scientific and Technical Revolution is being implemented in different, and what's more, contradictory social forms: both under capitalism and under socialism.
19. Scientists suggest the use of other indicators which will allow us to, for example, measure the consumer characteristics "of various types of products within the bounds of the unity of their highest classifying group. For example, all food products can be converted into kilocalories capable of creating heat, all types of fuel are commonly measured in standard fuel units, and all plant products in feed units..." (A. Zhukov and Yu. Pereboshchikov, "Issledovat problemy izmereniya proizvoditelnosti truda" [Investigation of the Problem of Measuring Labor Productivity]// KOMMUNIST. No 97, 1985, p 87). In our opinion, this evaluative method is incapable of providing a sufficiently accurate reflection of the processes inherent in labor productivity, since it allows for no correlation of all the consumer values of different quality (it has already been mentioned above, that Academecian S. G. Strumilin addressed this as long ago as the 1930's).

20. We were able to find only a single job which, based on an analysis of a massive volume of statistical material, showed a correlation of energy outlays and losses with a change in production scope and structural changes in production methods (see B. Commoner, "Tekhnologiya pribyli" [The Technology of Profit]. Moscow, 1976).
21. See EKONOMICHESKIYE NAUKI. No 9, 1986, p 20.
22. Ibid., p 21.
23. See Ibid., pp 21-22.
24. See Ibid.
25. V. Pokrovskiy, "Problemy stimulirovaniya nauchno-tehnicheskogo progressa" [The Problems of Stimulating Scientific and Technical Progress]. EKONOMICHESKIYE NAUKI, No 10, 1986, p 34.
26. See S. D. Valentey, "Razvitoj sotsializm: ekologicheskaya politika" [Developed Socialism: An Ecological Policy]. Moscow, 1984.
27. Concerning this, see, for example, V. V. Alekseyev, "Energetika v istorii obshchestva: mashtaby i kharakter vozdeystviya" [Power Engineering in the History of Society: the Scope and Character of Its Effect], from the book "Obshchestvo i priroda. Istoricheskiye etapy vzaimodeystviya" [Society and Nature. Historical Stages of Interaction]. Moscow, 1981, pp 125-131.
28. The objection could be raised that a machine tool which is used to manufacture a product expends a vanishingly small amount of energy. The objection is defused if we consider not only the amount of energy expended to operate the machine tool, but also the energy expended to manufacture the machine tool (though not during the time it was being developed, say 10-12 years ago, but based on the publicly necessary outlays for reproducing this type of equipment in the present technical and economic situation). This approach is in full accord with the Marxist conception of the process involved in forming publicly necessary outlays.

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PROBLEMS OF UPGRADING OLDER GAS FACILITIES DISCUSSED

Moscow GAZOVAYA PROMYSHLENNOST in Russian No 1, 1987 pp 2-3

[Article by G. P. Sulimenkov, Gas and Gas Condensate Production Administration:
"Problems of Upgrading Gas Fields"]

[Text] The production of gas in the Ministry of the Gas Industry increased during the years of the Twelfth Five-Year Plan by more than 200 billion m³ and that of condensate and oil by almost 20 million tons. In order to ensure the planned increase in their production, provision is made for allotting about 10 billion rubles of capital investments for the construction of additional surface facilities at gas-condensate and oil fields, including over seven billion rubles for construction and assembling operations. Part of these funds is intended for the program of upgrading and reorganization of production according to proposals of the associations.

In the gas-production industry, the upgrading of production is progressing in two directions: reconstruction of the operating fields and introduction of new equipment and technology.

The large-scale measures on the reequipment of the fields include the change-over to a mechanized method of production. The share of gas production with the use of DKS [booster compressor stations] will be increased to 56.4% by 1990.

Field facilities will be upgraded by further development of cooling processes for fractionation and for cooling the gas before its transfer along permafrost soils.

Cooling stations will be built chiefly with cooling units using centrifugal compressors which are more efficient than the piston units.

The plans of the current five-year plan provide for wide introduction of the cycling process at the facilities for the production of gas condensate in a number of regions in the country. In 1988, it is planned to introduce the cycling process at the Kotelevskiy and Timofeyevskiy fields, which will ensure in 1990 an additional production of a considerable amount of unstable gas condensate.

The technical and economic evaluation of the introduction of the cycling process at the Karachaganakskiy gas complex cited in the project shows a high effectiveness of production while maintaining the reservoir pressure. The use of

gas cycling will make it possible to obtain additional 175 million tons of liquid hydrocarbons in comparison with the depletion-type variant of development. The total national economic effect from the introduction of this method of development will amount to 8.64 billion rubles, and that of the depletion type. 6.53 billion rubles.

Large-scale jobs will have to be done for the realization of the program for the automation of the operating and newly constructed facilities. It is planned to build about 200 automated facilities, including 38 field units at the Urengoy, Yamburg and Medvezhye fields and 19 DKS. This, in combination with the reconstruction of a number of facilities, will make it possible to automate all of the Western Siberian fields.

Realization of the plans for upgrading and reconstruction, particularly at the fields with decreasing production, will result in a considerable simplification of the gas treatment technology at the NTS facilities (Vuktyl, Shatlyk, Naip and others) and, consequently, in a considerable release of oil equipment, shut-off and regulating equipment, high-pressure connecting parts, etc. The equipment being released at some large facilities has a high percentage of suitability (70% and higher) and meets modern manufacturing requirements, therefore, it can be used for the needs of the industry.

The program for the reequipment of the industry provides for a complex of measures for increasing the effectiveness of the development of offshore fields under complicated conditions. In the Twelfth Five-Year Plan, Glavmorneftegaz [Main Administration for Offshore Oil and Gas Production] plans to increase the pace of development from 1.71 to 1.94%, and for fields with steady and growing production from 3.08 to 5.4%. Considerable volumes of oil production will be done by mechanized methods.

The majority of technological processes in petroleum production (formation pressure maintenance, well operation, treatment, gathering and transportation of petroleum) comply with the advanced scientific and technical achievements, however, due to the outdated and partially wornout equipment, the effectiveness of these technological processes is not sufficiently high. First of all, this applies to the gas-lift method of operation, where, due to the outdated and worn-out underground well equipment, gas-distribution equipment and compressor equipment, the specific gas discharge per - one ton of the lifted fluid is very high and the efficiency of the method is low.

Operating oil wells with sucker-rod pumps is also not very effective, which is due to the low quality of deep-well pumps and the tubing. Inadequate strengths of the rods and valves of deep-well pumps is the main cause of frequent well repairs (life between overhauls is 75-120 days).

It should also be mentioned that the technical level of underground and major repairs of wells is low. There are many reasons for that: firstly, there are no washing fluids which would preserve or spare the reservoir properties of the well-bottom zone of the formation; well repairs are complicated due to the absence of equipment for well head sealing and for lowering and lifting the tubing under pressure; there are no mechanical tongs with torque gages for screwing and unscrewing the tubing and no mechanical devices for laying-down the

pipes on receiving platforms or installing them in the igniter of the derrick; there are not enough elevators and minor mechanization devices; there is no equipment for repairing wells over 3500 m deep. For the above reasons, the well repair process should be considered outdated and has to be replaced.

It is appropriate to mention here that, with the existing tendency of the allocation of funds, the shortage in the equipment needs will be increasing, therefore, it is expedient to increase the volumes of industrial production of a number of machines and equipment.

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GAS TRANSPORT PRODUCTION TO BE IMPROVED

Moscow GAZOVAYA PROMYSHLENNOST in Russian No 1, 1987 pp 4-6

[Article by B. I. Vasilenko, Main Administration of Gas Transport of the Central Regions: "New Technical Level for Gas Transport Production"]

[Text] The rapidly growing gas transport production is characterized by an exceptionally high capital-output ratio which has a negative effect on the profitability of the USSR YeSG [Unified Gas Supply System]. In developing the current and long-range programs for the reequipment for the system of main gas pipelines, the industry is solving its main problem: improvement of the economic indexes of gas supply. Moreover, it is planned to reduce the relative number of the maintenance personnel and to lower the specific gas consumption for the industry's needs and losses.

The following complex of measures are planned for achieving these goals.

Reequipment of the Line Part of the Main Gas Pipeline Network On the Basis of Available Equipment. This will make it possible to bring the technical state coefficient of the main pipelines up to 0.98-1.0. This involves, first of all, the replacement of the existing valves with equal diameter valves and installation of injecting and receiving chambers of purification devices. However, this will entail certain difficulties. Since the majority of gas pipelines run through developed areas, it is difficult to resolve the problem of draining condensate, water and various impurities. So far there are no developed model proposals for condensate drainage and utilization. It is time for the design institutes to solve this problem with the aid of sectorial science.

Improvement of the Quality of Major Repairs of GPA [Gas Compressor Units]. According to the data of the Orgenergogaz, the coefficient of the available capacity with respect to the units of the Minenergomash [Ministry of Power Machine Building] which constitute about 50% of the installed GPA facilities in our main administration, varies from 0.55 to 0.85. However, there are units whose power coefficient has been 0.95-1.0 in the course of a number of years. This means that there are reserves and our task is to make the most of these resources.

The main administration and Soyuzgazenergoremont have planned a number of technical and organizational measures for increasing the capacities and efficiency

of units at the KS [compressor stations] of Ukhtatransgaz which will ensure reliable operation of GPA with a lower consumption of fuel gas.

Reequipment and Renovation of KS. During the current five-year plan, we have to replace about 120 old outdated units.

Moreover, a number of measures have been planned which will considerably improve the reliability and operating efficiency of GPA. They include: the conversion of all types of units to direct air cooling of oil and development and introduction of gas inlet valves for GMK [gas engine compressors], which will make it possible to reduce fuel consumption by 10% and increase the failure interval of these units.

Introduction of Automatic Control Systems. One of the fundamental problems of the reequipment of gas transports with considerations of the requirements of periodic unattended maintenance of technological processes is effective automation of the operating facilities and equipment.

During the years of the Eleventh Five-Year Plan, work was started in the system of Glavtsentrtransgaz at the facilities of the Ukhtatransgaz and Lentransgaz on the reconstruction and updating of the monitoring and control systems, but special attention was given to the testing and introduction of facilities and systems which had to serve as a basis for the updating and reequipping of the facilities in the Twelfth Five-Year Plan.

The most urgent problem was to create control systems which would ensure the operation of KS with a minimal number of the operating personnel.

The traditional methods, such as producing the main control panels from a set of individual panels of unit controls, shop-wide and station-wide valves, and control panels for the automation of auxiliary processes, are unacceptable in this case since the constant increase in the number of local means of automation at KS requires a considerable labor input by skilled personnel and does not ensure any qualitative changes when changing over to unattended maintenance.

Therefore, the control system for the "leading" Volkhov KS of Lentransgaz was developed on the basis of the SM-1800 microcomputer which is a concentrator and analyzer of information arriving from the technological equipment of KS and a dispatcher's instrument for remote control of KS units on the basis of the information processed by the UVK [process control computer complex]. The UVK was also used to solve another problem: minimizing the volume of the means of automation.

In the process of the development of the KS control system equipped with GPA-Ts-6.3, special attention was given to the treatment of pulsed and fuel gas, the use of the heat of waste gases for heating the pulsed lines, pneumatic drives and valve bodies, valve control units, drainage lines of dust collectors; equipping of VOU [air cooling device] shutters and the compartment of oil coolers with actuating mechanisms; introduction of AVR [automatic reserve switching] in the automation units of GPA with remote control from the dispatcher's room; oil cooling on operating GPA with the cycle air.

For the limit switches of valves, sealed-contact switches were used as more effective from the viewpoint of the operational characteristics (airtight contact group, structural stability against shifting from shocks when the valve is moved) which were manufactured locally.

To protect the turbine against vibration, a vibration monitoring and measuring device IV-D-PF was introduced which replaced the outdated and less reliable IV-500.

Considerable efforts were required for linking the unit control system with the shop control system of the type "Saturn". As a result of these efforts, the "leading" Volkhov KS was converted to operation with one senior dispatcher in a shift. Five machine operators in the shifts were relieved.

However, a number of technical and organizational problems in the development of a control system for KS with unattended maintenance and remote-controlled shops still remained unsolved. There is no protection against vibration and protection against pumping of superchargers. Still uncompleted is the development of a control system of the shop and station levels on the basis of UVK SM-1800 or PS-1001 which would combine all functions of these levels in the UVK for the purpose of minimizing volumes of the means of automation of KS and increasing their reliability through redundancy.

Moreover, the results of the preparation of technological equipment for automation are not properly generalized and analyzed by the industry's scientific research organizations and, consequently, are not used in designs for newly constructed and reconstructed KS.

The reconstruction of the first-priority gas-transportation shops at the Ukhta-Torzhok gas pipeline was done with the use of the unit automation system "Agat". It was planned that the reconstructed KS will be using the system "Rezerv-5" developed by the VNPO [All-Union Scientific Production Association] "Soyuzgaz-avtomatika" especially for the purposes of reconstruction. However, the problems of providing the system with microprocessors still remain unsolved to this day.

The problem of conserving labor resources put centralized unattended maintenance of GRS [gas-distributing stations] in the forefront, particularly low-capacity stations. However, insufficient attention given to the problem of telemechanization of GRS during the period of construction made it impossible to use this direction widely in the labor-conservation policy.

Glavtsentrtransgaz developed a reequipment program which included a number of the most important jobs for converting gas-transportation facilities to centralized unattended maintenance and remote control. Specifically, it was planned: to construct a remote-controlled Gryazovets-Leningrad gas pipeline with unattended periodic maintenance of compressor shops in order to use the accumulated experience for the Yamal-West gas pipeline system;

to reconstruct the Northern Caucuses-Center, Belousov-Torzhok-Leningrad, Ukhta-Torzhok (I and II sections) gas pipelines, providing them with control systems;

convert 200-300 low-capacity GRS to centralized periodic maintenance;

to equip gas pipelines and KS with averaging tubes for effective measuring of the flow of compressed and transported gas.

In order to realize this program, the VNPO "Soyuzgazavtomatika" and design institutes must make good the lag in their work as soon as possible and provide the technical base for automation.

Introduction of New Advanced Forms of Maintenance. During the current five-year plan, we are planning to convert to unattended forms of operation compressor shops with the units of GPA-Ts-6.3, GPU-10, GT-6-750, GTK-10I and GTK-25I.

Advanced forms of preventive maintenance will be used (in addition to Zapadtransgaz and Lentransgaz) at Mostransgaz and Sevkavzazprom. For this purpose PTP "Voroshilovgradenergoremont" was organized.

In order to assimilate the funds allotted for reequipment and modernization, it is necessary to develop industrial bases and construction enterprises. Therefore, the main administration has developed a program for the development of the infrastructure.

Analyzing the process of the development of the programs for reequipment, modernization and productive capital replacement, we, the production workers, have encountered a number of problems. Due to the absence of a single methodology, each association developed their own programs differing in its content and volume. There is no clarity in the selection of the criteria which must be taken into consideration in developing the programs. Evidently, it is necessary to be guided not only by such indexes as obsolescence, deterioration, or technical condition, but also long-range gas flow patterns and economic effectiveness.

In our opinion, it is time to stop using standard equipment. It must be developed or updated for the gas industry.

When developing programs, our scientific potential quite frequently "cures" consequences and not the causes. For example, we are now installing separator filters in gas purification areas at the KS inlet. This equipment is expensive and requires considerable maintenance expanses. It is more rational and less expensive to install double-capacity purification facilities at the field and not to spend great efforts on removing condensate and water along the entire length of the gas pipelines and, at the same time, to develop a design of a purification device for the gas pipelines that would ensure reliable purification.

Gas transport production associations have accumulated sufficient experience in the development and introduction of measures for improving reliability. Unfortunately, this experience is hardly used by design institutes and scientific production associations in designing new facilities and reequipment of the operating facilities. For example, it took VNPO "Soyuzgazavtomatika" almost three years to set up the production of sealed contact limit switches in spite of the fact that they were given the drawings and experimental specimens for them.

Developing the PKB [planning and design offices] of production associations (and even of main administrations), evidently, is not the best and economical course. For wide and rapid introduction of tested measures, it is necessary to have a single centralized agency (for example, an office of standard designs and solutions) which would be a legislative organ for design institutes of the industry.

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GOSSNAB, OTHER REGULATIONS ON INDIVIDUAL LABOR APPROVED

Moscow EKONOMICHESKAYA GAZETA in Russian No 18, Apr 87 p 23

[Regulations, titles as indicated below]

[Text] Approved by USSR Gossnab:

"Procedure for Providing Citizens Engaged in Individual Labor Activity With Output Intended for Technical-Production Purposes and for Enabling Those Citizens to Purchase Excessive and Unused Materials Values and Waste Products of Production and Consumption From Enterprises and Organizations"

1. Citizens engaging in individual labor activity purchase the raw materials that they need (including waste products of production and consumption), other materials, tools, and other property in the state and cooperative retail trade network, in organizations of the USSR Gossnab system, and at markets, and use the material resources obtained from the customers (citizens, enterprises, institutions, and organizations) on the basis of contracts concluded with them.

2. The sale to citizens engaging in individual labor activity of commodities in the state and cooperative retail trade network, and the sale of the articles manufactured by them, are carried out in the procedure approved by USSR Mintorg [Ministry of Trade], dated 20 February 1987, No. 024-75.

3. Citizens having the authorization (registration certificate or license) to engage in individual labor activity (hereinunder referred to as "citizens") are provided with output intended for technical-production purposes (hereinunder referred to as "output") by the territorial agencies of the USSR Gossnab system in accordance with the list of products being sold by them.

The Gossnabs of the union republics and the main territorial administrations of USSR Gossnab provide the citizens with this output by way of their subordinate associations, administrations, output-delivery enterprises, wholesale and commission stores, timber-trade enterprises, and secondary raw-materials acceptance station/stores (hereinunder referred to as "organizations"), which are authorized, on the basis of the decree governing the territorial agency, to sell that output to the citizens.

Managers of the territorial agencies in the USSR Gossnab system determine the specific official (or group of persons) responsible for receiving the citizens and providing information service to them with regard to the purchasing of the output that they need.

The need of output to supply the citizens' needs is determined by the gossnabs of the union republics and the main territorial administrations of the USSR Gossnab on the basis of the data provided by their subordinate organizations.

In order to guarantee the most complete and most timely fulfillment of the citizens' purchase orders, the territorial agencies in the USSR Gossnab system can use the output reserves located at their subordinate organizations, as well as the unused material values which have been brought into economic turnover, which are formed at the enterprises and organizations.

If the territorial agencies lack individual types of output needed to fulfill the citizens' purchase orders, the territorial agencies, in the established procedure, refer the question of allocating resources for these purposes to the appropriate planning agencies.

The cost of the output sold to citizens by organizations in the USSR Gossnab system is included in the fulfillment of the plan for wholesale realization of output intended for technical-production purposes.

4. Output is sold to citizens by organizations of the territorial agencies on the basis of the citizens' purchase orders, in the procedure established by the territorial agencies.

The purchase order submitted by the citizens in written form must indicate the person's last name, the number of the registration certificate or license, and the name, quantity, and description of the required output.

The period of time required to consider the citizens' purchase orders must not exceed 15 days after receipt.

Output is sold to citizens by way of the territorial agencies of the USSR Gossnab system at retail prices, or, in the event that such prices do not exist, at wholesale prices with the use of coefficients approved by USSR Goskomtsen [State Committee on Prices] or by its agencies in the established procedure.

Payment for the value of the output is made through savings banks by using USSR Gostrudsberkass [State Workers' Saving Bank] checks or by transferring the amounts of money from deposit accounts.

5. Individual types of instruments, equipment, and technical means can be obtained by citizens for temporary use at the rental departments (stations) of the territorial agencies of the USSR Gossnab system.

When output intended for technical-production purposes is rented out, the rates are established by the Gossnabs of the union republics or by the main territorial administrations of USSR Gossnab.

When commodities intended for cultural, social, everyday, or household use are rented out, the rates used are those indicated in price lists No. B-83 (01-15) which have been approved by the Goskomtsen of the union republics.

6. Enterprises, associations, organizations, and institutions (hereinunder referred to as "enterprises") can sell citizens raw and other materials, equipment, articles, and other material values (including those that were in operation) that are suitable for use but are not needed by the enterprises where they are located (unused material values), as well as waste products of production and consumption.

Enterprises sell the citizens the unused material values at retail prices, or, if such prices do not exist, at wholesale prices with the use of coefficients approved by USSR Goskomtsen or its agencies in the established procedure.

The prices of the unused material values that were in use, as well as those that have lost their commercial appearance or initial quality, are determined with a consideration of their actual wear and tear and quality by a commission appointed by the enterprise manager.

The members of the commission include representatives of public organizations. The commission's decisions are formalized by a document that is approved by the enterprise manager.

Waste products of production and consumption which do not have retail prices that have been approved in the established procedure (or wholesale prices with coefficients that have been approved for them) are sold by the enterprises to citizens at prices that are determined by the enterprise manager, but that are no higher than the retail prices for standard-quality raw materials.

Approved by USSR Ministry of Health [Minzdrav]:

"Statute Governing the Individual Labor Activity of Physicians and Middle-Level Medical Workers"

This Statute was developed with a consideration of the Principles of the Legislation of the USSR and the Union Republics That Govern Public Health, and the USSR Law entitled "Individual Labor Activity."

Persons who are authorized to engage in individual labor activity as physicians and middle-level medical workers are those who have received special training and titles at the appropriate higher and secondary special educational institutions.

A physician who has not worked in his profession for more than three years is authorized to engage in individual labor activity if he undergoes probationary work at a physicians' refresher-course institution or other appropriate public-health institutions, with subsequent authorization to engage in medical activity.

When carrying out individual labor activity, the physicians employ diagnostic, prophylactic, and treatment methods and medicines that have been authorized by USSR Ministry of Public Health and this Statute.

Physicians engaging in individual labor activity are required to report to the public-health agencies the information that has become known to them about the disease of citizens in instances when this is required by the interests of protecting the public's health, and to report to investigative and court agencies on their demand. Physicians must report to public-health agencies any instances of the establishment of venereal diseases, leprosy, microsporia, ringworm, or scabies. When dealing with patients whose mental state represents danger to themselves or to those around them, and who are to be hospitalized immediately at a mental hospital, the necessary steps must be taken to hospitalize them. If a physician identifies a patient with a psychotic disorder, dementia, or clearly expressed personality changes, he must report that fact to the psychoneurological dispensary, or a patient with drug addiction to the narcological dispensary, at the patient's place of residence.

Physicians are required to report to internal affairs agencies about persons requesting treatment for fresh injuries and wounds.

A physician carrying out individual labor activity is required to maintain a Registration Log of Outpatients, form No. 074/u, which has been approved by USSR Ministry of Health, and also has the right to write prescriptions, with the exception of prescriptions for narcotics and medicines that are considered similarly to narcotics, to enable the patients to obtain medicines and articles for medical purposes free of charge or on a preferential basis.

To write out prescriptions, the physicians use blank forms No. 107/u, on which, in the upper left corner, instead of the name of the public-health institution, the last name, patronymic, and first name, address, and telephone number of the physician are printed. These prescriptions are also used to enable the physicians to obtain from pharmacies the medicines that are necessary for his work with patients, and must be stamped "For patients making office calls." Physicians are not authorized to use the prescription blanks of preventive or therapeutic institutions. The physicians must write out the prescriptions in strict conformity with the rules for writing prescriptions for medicines, which rules have been approved by order of USSR Ministry of Public Health. The physicians themselves order and pay for the printing of the prescription blanks and registration logs for outpatients.

Physicians engaging in individual labor activity do not enjoy the right of issuing medical certificates or various statements to their patients concerning their diseases.

In order to carry out individual labor activity, physicians are granted the opportunity to purchase articles of medical technology at Medtekhnika [Medical Technology] stores. Authorizations in each specific instance are issued by the administrators of those public-health agencies on whose territory the

physicians will engage in individual labor activity and in conformity with Article 5, "The Rendering of Assistance to Citizens Engaging in Individual Labor Activity," of USSR Law entitled "Individual Labor Activity."

Physicians and medium-level medical workers engaging in individual labor activity are required to be guided by the sanitation and anti-epidemiological standards and rules in organizing office calls by patients, and by the strict observance of the rules governing asepsis and antisepsis, and must preclude the possibility that the patient will develop complications as a result of the carrying out of manipulations, because of the violation of the sanitation and hygiene standards and rules that are in effect.

Individual labor activity is authorized for:

1. Physicians in the specialties for which they have received the corresponding training.
2. Middle-level medical workers for giving injections, providing therapeutic physical culture, massage, electropuncture, and measures to care for the patients.

Physicians in all specialties are prohibited from:

- carrying out all invasive diagnostic methods of research;
- carrying out surgical operations, including abortions;
- treating infectious or venereal diseases;
- observing or treating pregnant women;
- observing or treating narcotics addicts.

Dental technicians are prohibited from diagnosing or treating stomatological diseases.

In conformity with the Principles of the Legislation of the USSR and the Union Republics Concerning Public Health, physicians and medical workers do not have the right to divulge the information concerning the patients' diseases or their intimate or family life, which has become known to them in the course of executing their professional duties.

Persons are prohibited from engaging in medical activity if they have not been authorized in the established procedure to participate in this activity.

Responsibility for the providing of illegal medical services is established by the legislation of the union republics.

Approved by USSR State Committee for Labor and Social Problems [Goskomtrud]:

"Statute Governing the Instruction Given by Persons Possessing a High Level of Skill in Manufacturing Rare Works of Art to Other Citizens Who Have an Inclination and Avocation for This"

1. The instruction is organized in conformity with USSR Law entitled "Individual Labor Activity" for purposes of the further development of folk art, the rebirth and preservation of its traditions on the basis of the transferral of artistic experience.

2. The instruction can be carried out by persons having a high level of skill in manufacturing rare works of art, who possess an authorization to engage in individual labor activity.

The list of types of folk art for which the instruction is organized is approved by the republic departments of the USSR Artistic Foundation, jointly with the ministries of culture of the union republics.

3. The painters and experts in folk art who are authorized to carry out the instruction are determined personally by executive committees of the local soviets of people's deputies on the basis of recommendations from the artistic councils attached to those ispolkoms or to the ministries, departments, and enterprises engaged in the manufacture of articles in the folk-art handicrafts.

4. The persons receiving the instruction can be those persons who have an inclination and avocation for mastering the skills required to manufacture rare works of art (provided they observe the principles stated in the USSR Law entitled "Universal Secondary Education").

5. The periods of instruction are established in each individual instance for the students depending on the complexity of the artistic handicraft, as a rule, for as long as one year, or, in individual instances, to three years.

6. Payment for the instruction and other necessary expenses (materials, paints, etc.) linked with the instruction is made on the basis of a contract concluded between the instructor and a student who has reached his legal majority, or the legal representative of a minor student.

Payment can be made by the USSR Union of Artists in conformity with USSR Goskomtrud decree dated 18 June 1979, No. 326, on the basis of a declaration by the unions of artists and the artistic foundations of the union republics in the procedure established by the Statute Governing Individual Instruction Provided by Folk Artists Who Are Not United into Folk-Art Handicrafts, which was approved by the Secretariat of the board of the USSR Union of Artists on 21 January 1981.

7. In conformity with Article 22 of USSR Law "Individual Labor Activity," supervision of the procedure and quality of instruction is carried out by the executive committees of the local soviets of people's deputies, with the participation of the artistic councils indicated in paragraph 3 of this Statute.

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END

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